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PROCEEDINGS  
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LITERARY AND PHILOSOPHICAL SOCIETY  
OF  
LIVERPOOL,  
DURING THE  
FIFTY-FOURTH SESSION, 1864-65.

No. XIX.



LONDON:  
LONGMAN, GREEN, LONGMAN, ROBERTS, & GREEN.

LIVERPOOL:  
DAVID MARPLES, 50B, LORD STREET.

1866.

This Volume has been edited by the Hon. Secretary.

The Authors have revised their Papers.

The Authors alone are responsible for facts and opinions.

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## SESSION LIV., 1864-65.

### *President :*

JAMES A. PICTON, F.S.A.

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J. BAKER EDWARDS, Ph.D., F.C.S.

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### *Hon. Secretary :*

C. COLLINGWOOD, M.A. & M.B. Oxon, F.L.S., &c.

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REV. JOSHUA JONES, M.A. Oxon.

REV. W. BANISTER, B.A.

CHARLES CLARK.

F. W. BLOXAM.

REV. HERMANN BAAR, Ph.D.

WILLIAM A. UNWIN.

## ORDINARY MEMBERS

ON THE SOCIETY'S ROLL AT THE CLOSE OF THE 54TH SESSION.

*Those marked + are Original Members of the Society.  
Life Members are marked with an asterisk.*

Oct. 11, 1833 Aikin James, 2, *Drury-lane*, and 4, *Gambier-terrace*.

Jan. 8, 1861 Anderson, David, 5, *Castle-street*, and 7, *Church-street*,  
*Egremont*.

Dec. 11, 1854 Andrew, John, *Fenwick chambers* and *Edge-lane*.

March 7, 1864 Archer, F., jun., B.A. Trin. Coll., Cantab., 10, *Rodney-street*.

\*Nov. 28, 1853 Archer, T. C., F.R.S.E., F.R.S.S.A., Director of the  
Industrial Museum, Scotland, *Edinburgh*.

Dec. 14, 1863 Ashe, Theoph. Fielding, 45, *South Castle-street*, and 4,  
*Dingle-lane*.

Feb. 22, 1855 Avison, Thomas, F.S.A., 18, *Cook-street*, and *Fulwood-park*, *Aigburth*.

- Dec. 10, 1860 Baar, Rev. Hermann, Ph.D., 98, *Bedford-street South*.
- Jan. 11, 1864 Bagshaw, John, 87, *Church-street*, and *Canning-terrace*, 201, *Upper Parliament-street*.
- May 1, 1854 Bahr, G. W., 4, *Cable-street*, and 2, *South-hill Grove*, *Aigburth*.
- May 4, 1863 Bailey, Fras. J., M.R.C.S., 51, *Grove-street*.
- April 17, 1865 Baker, W. J., 24, *Fenwick-street*, and 47, *The Elms*, *Toxteth-park*.
- Dec. 15, 1862 Balman, Thomas, M.D., 6, *Bedford-street South*.
- Oct. 29, 1860 Banister, Rev. W., B.A., *St. James's Mount*.
- Jan. 13, 1862 Baruchson, Arnold, 8, *Edmund-street*, and *Blundell-sands*, *Great Crosby*.
- Nov. 3, 1862 Behrend, Saml. H., M.A., 24, *Clarendon Rooms*, and 15, *Canning-street*.
- Mar. 9, 1857 Bell, Christopher, *Moor-street*, and 60, *Bridge-street*, *Birkenhead*.
- Nov. 14, 1864 Bennett, J. M., *St. George's Buildings*, *Lime-street*, and 109, *Shaw-street*.
- Feb. 6, 1854 Bennett, William, *St. George's-place*, *Lime-street*, and *Lancaster*.
- Nov. 2, 1863 Billson, Alfred, 46, *Castle-street*, and 14, *Sandon-street*.
- Oct. 31, 1859 Birch, Jas., 13, *The Temple*, *Dale-street*, and 7, *Upper Baker-street*.
- Jan. 25, 1864 Birchall, James, *Industrial Schools*, *Kirkdale*.
- April 15, 1861 Blake, James, 63, *Kitchen-street*, and 45, *Canning-street*.
- Jan. 12, 1863 Bolton, Ogden, *Prince's-buildings*, *Harrington-street*, and 10, *Great George-square*.
- \*Mar. 6, 1835 Boulton, Swinton, 1, *Dale-st.*, and 3, *Bedford-st. South*.
- Oct. 21, 1844 Bright, Samuel, 1, *North John-street*, and *Sandheys*, *Mill-lane*, *West Derby*.
- \*Jan. 8, 1855 Brockholes, James Fitzherbert, *Puddington Old Hall*, *near Neston*.
- Oct. 31, 1864 Bromham, William, 14, *South Castle-street*, and 8, *Montpellier-terrace*, *Upper Parliament-street*.
- Dec. 2, 1861 Browne, G. Mansfield, 15, *Fenwick-street*, and 15, *South-hill-road*, *Toxteth-park*.
- April 21, 1862 Bulley, Samuel, *Peter's-place*, *Rumford-street*, and *East Lodge*, *Prince's-park*.
- April 18, 1864 Burne, Joseph, *Royal Insurance Office*, 1, *North John-street*, and *Higher Tranmere*.

- Mar. 9, 1863 Buxton, David, F.R.S.L., Principal of the School for the Deaf and Dumb, 52, *Oxford-street*.
- \*May 1, 1848 Byerley, Isaac, F.L.S., F.R.C.S, *Victoria-road, Seacombe*, TREASURER.
- Feb. 23, 1863 Callon, W. J., M.D., 125, *Islington*.
- Nov. 3, 1862 Cameron, John, M.D., M.R.C.P., Physician to the Southern Hospital, and Lecturer on Medicine at Royal Inf. Sch. of Med., 17, *Rodney-street*.
- April 7, 1862 Campbell, John, *Liverpool and London Chambers*, and *Oak-house, Aigburth-hall-road*.
- Jan. 9, 1865 Cariss, Astrup, *Liverpool Institute, Mount-street*, and 6, *Hope-place*.
- April 7, 1862 Cawkitt, James M., *Underwriters' Room, Exchange*, and 23, *Queen's-road, Everton*.
- Dec. 2, 1861 Chadburn, William, 71, *Lord-street*.
- Dec. 1, 1851 Clare, John Leigh, 11, *Exchange-buildings*, and *The Old Hall, Aigburth-road*.
- Oct. 31, 1859 Clark, Charles, 17, *North John-street*, and *Linden Cottage, Rock Ferry*.
- Jan. 26, 1857 Clay, William, 97, *Sefton-street*, and 4, *Parkhill-road*.
- May 31, 1858 Collingwood, Cuthbert, M.A., M.B. Oxon, M.R.C.P., F.L.S., Lect. on Botany, Royal Infirmary Sch. of Medicine; Physician to the Northern Hospital, 15, *Oxford-street*. HON. SECRETARY.
- Jan. 26, 1863 Commins, Andrew, LL.D. Dub., *Clarendon-chambers*, 1, *South John-street*.
- Jan. 22, 1850 Cox, Henry, 19, *Brunswick-st.*, and *Poplar-rd., Oxton*.
- Oct. 6, 1862 Crosfield, Wm., jun., 28, *Temple-st.*, and *Alexandra-drive, Ullet-road*.
- Feb. 8, 1864 Cuthbert, J. R., 40, *Chapel-street*, and 40, *Huskisson-st.*
- Jan. 26, 1857 Dadabhai Naoroji, Professor of Gujarati, London University, 32, *Great St. Helens, London, E.C.*
- Nov. 2, 1863 Dawbarn, Wm., 4, *Chapel-street*, and 99, *Shaw-street*.
- Nov. 27, 1848 Dove, Percy Matthew, F.S.S., 1, *North John-street*, and *Claughton*.
- Nov. 27, 1863 Dove, Jno. M., *Royal Insurance Office*, and *Claughton*.
- Jan. 23, 1848 Drysdale, John James, M.D. Edin., M.R.C.S. Edin., 44, *Rodney-street*.
- Oct. 5, 1863 Drysdale, W. G., 7, *Elm-terrace, Beech-st., Fairfield*, and 14, *East side Queen's Dock*.

- Feb. 4, 1856 Duckworth, Henry, F.L.S., F.R.G.S., F.G.S., 5, *Cook-street*, and 2, *Gambier-terrace*.
- \*Nov. 27, 1848 Edwards, John Baker, Ph.D. Gies., F.C.S., Lect. on Chemistry, Liverpool Royal Infirmary Sch. of Med., *Royal Institution Laboratory*, and *Waterloo*. VICE-PRESIDENT.
- March 10, 1862 Ellison, Christopher O., *Adelphi-chambers*, *South John-street*, and *Esplanade, Waterloo*.
- April 7, 1862 English, Charles J., 26, *Chapel-street*, and 26, *Falkner-square*.
- Feb. 20, 1865 English, C. R., 26, *Falkner-square*.
- Dec. 14, 1863 Erskine, Robert, 316, *Upper Parliament-street*.
- Nov. 18, 1860 Evans, Henry Sugden, F.C.S., 52, *Hanover-street*, and *Rainhill Mount, Rainhill*.
- April 30, 1860 Fabert, John Otto William, 1, *Parliament-street*, and 3, *St. James's Mount*.
- Oct. 31, 1864 Fearenside, William, 5, *Cook-street*, and *Seacombe*.
- \*Dec. 13, 1852 Ferguson, William, F.L.S., F.G.S., *Liverpool and London chambers*, and 2, *St. Aidan's-terrace, Birkenhead*.
- Feb. 9, 1863 Finlay, William, Senior Mathematical Master, Middle School, *Liverpool College*, and 49, *Everton-road*.
- April 18, 1864 Fischer, Hermann, *Royal Insurance Office*.
- \*April 3, 1837 Fletcher, Edward, 4, *India-buildings*, and 31, *High Park-street*.
- \*Mar. 19, 1855 Foard, James Thomas, 5, *Essex-court, Temple, E.C.*
- \*Feb. 6, 1854 Gee, Robert, M.D. Heidelb. M.R.C.P., Lecturer on Diseases of Children, Royal Infirmary Sch. of Med.; Physician, Workhouse Hospital; 10, *Oxford-street*.
- Feb. 9, 1863 Giles, Rev. Edward, *Huyton-park, Huyton*.
- March 4, 1861 Ginsburg, Rev. Christian D., LL.D. Glasg., *Brooklea, Aigburth-road*. VICE-PRESIDENT.
- Feb. 20, 1865 Gordon, Rev. A., M.A., 49, *Upper Parliament-street*.
- Dec. 2, 1861 Graves, Samuel R., M.P., *Baltic-buildings*, and *The Grange, Wavertree*.
- Oct. 5, 1863 Gray, Jno. M'Farlane, *Vauxhall Foundry*, and 80, *Prince Edwin-street*.
- Nov. 14, 1853 Greenwood, Henry, 32, *Castle-street*, and *Roseville, Huyton*.

- Nov. 30, 1857 Grimmer, William Henry, 15, *Cable-street*, and '64, *Grove-street*.
- Jan. 22, 1855 Hakes, James, M.R.C.S., Surgeon to the Northern Hospital, *Hope-street*.
- Feb. 23, 1863 Hall, Charlton R., 17, *Dale-street*, and 111, *Shaw-street*.
- \*Jan. 21, 1856 Hardman, Lawrence, 5, *India-buildings*, and *Rock-park, Rock Ferry*.
- Feb. 9, 1863 Hart, Thos. Aubrey, M.A., Oxon, 81, *Bedford-street South*.
- Feb. 6, 1865 Hassan, Rev. E., *Alma-terrace, Sandown-lane*.
- Feb. 6, 1865 Hebson, Douglas, 13, *Tower-chambers*, and 58, *Bedford-street South*.
- Dec. 12, 1855 Hess, Ralph, *Albany, Oldhall-street*, and 17, *Upper Duke-street*.
- March 6, 1865 Hey, John, M.R.C.S., 126, *Islington*.
- Dec. 28, 1846 Higgins, Rev. H. H., M.A. Cantab., F.C.P.S., *Rainhill*.
- \*Oct. 31, 1836 Higginson, Alfred, M.R.C.S., Surg. Southern Hosp., 44, *Upper Parliament-street*.
- March 4, 1861 Hindley, Rev. H. J., M.A., 3, *Grecian-terrace, Everton*.
- Nov. 16, 1863 Holden, Adam, 48, *Church-street*, and 5, *Towerlands-street, Edge-hill*.
- Nov. 13, 1854 Holland, Charles, *Liscard-vale, New Brighton*.
- \*Dec. 14, 1862 Holt, Robert Durning, 6, *India-buildings*, and 2, *Rake-lane*.
- March 22, 1847 Horner, Henry P., 2, *Derby-square*, and 5, *Devonshire road, Prince's-park*.
- Jan. 9, 1865 Howse, Rev. E., 77, *Bedford-street South*.
- Nov. 4, 1850 Howson, Rev. John S., D.D. Trin. Col., Cantab., Principal of the Liverpool College, *Shaw-street*, and *Dingle-park, Dingle-lane*.
- Dec. 27, 1841 Hume, Rev. Abraham, D.C.L. Dub., LL.D. Glas., F.S.A., 24, *Clarence-street, Everton*.
- Nov. 28, 1864 Humphreys, William, *Vauxhall Foundry*.
- \*Nov. 13, 1854 Hunter, John, Member Hist. Society Pennsylvania, *Halifax, Nova Scotia*.
- Jan. 13, 1862 Hutchison, Robert, *Barned-buildings, Sweeting-street*, and 6, *Canning-street*.
- Jan. 26, 1857 Hutton, David, 3, *St. George's-crescent*, and 61, *Canning-street*.

- \*April 29, 1850 Ihne, William, Ph.D. Bonn, *Villa Felseck, Heidelberg.*
- Feb. 23, 1857 Imlach, Henry, M.D. Edin., 1, *Abercromby-square.*
- Nov. 14, 1864 Imlach, Henry, jun., 1, *Abercromby-square.*
- \*Oct. 21, 1844 Inman, Thomas, M.D. London, M.R.C.P., Physician  
Royal Infirmary, 12, *Rodney-st.*, and *Spital, Cheshire.*
- Nov. 28, 1864 Jeffery, F. J., *Compton House*, and *Woolton Hall,*  
*Woolton.*
- March 10, 1862 Johnson, Richard, *Queen Insurance-buildings*, and  
*Brookfield House, Seaforth.*
- Jan. 26, 1863 Johnson, Richard, jun., *Queen Insurance-buildings.*
- March 9, 1863 Jones, Rev. Joshua, M.A. Oxon, Principal of the  
Liverpool Institute, 59, *Bedford-street South.*
- \*April 4, 1852 Jones, Morris Charles, *Queen Insurance-buildings*, and  
75, *Shaw-street.*
- March 23, 1863 Jones, R.D., B.A. T.C.D., *Collegiate Institution.*
- May- 5, 1851 Jones, Roger Lyon, *Liverpool and London-chambers,*  
*Exchange*, and 6, *Sunnyside, Princes-park.*
- Feb. 19, 1855 King, Alfred, 14, *Newington*, and 9, *Netherfield-road*  
*South.*
- Oct. 3, 1864 Kirkby, Wm. Horseman, *Exchange-court*, and *Brook*  
*House, Little Brighton.*
- Feb. 20, 1865 Lalcaca, Dhunjeeshaw Moneckjee, *Mawdsley-chambers,*  
8, *Castle-street*, and 6, *Ashleigh, Anfield.*
- Jan. 10, 1848 Lampion, William James, 21, *Water-street*, and 5,  
*Beech-terrace, Beech-street, Fairfield.*
- \*Jan. 14, 1839 Lassell, William, F.R.S.S.L. and E., F.R.A.S., 27,  
*Milton-street*, and *Broadstones, Sandfield-park, West*  
*Derby.*
- April 27, 1862 Lassell, William, jun., 27, *Milton-street*, and *Tue-*  
*brook.*
- Oct. 21, 1844 Lear, John, 1, *North John-street*, and 22, *Holland-*  
*terrace, Duke-street, Edge Hill.*
- Feb. 10, 1862 Leycester, Edmund Mortimore, Commander R.N.,  
*Admiralty Office*, 2, *Drury-lane*, and 20, *Belvedere-*  
*road, Prince's-park.*
- Dec. 10, 1860 Leyland, Joseph, *Williamson-square.*
- May 4, 1863 Lister, James, *Union Bank*, 6, *Brunswick-street*, and  
*Greenbank*, 166, *Breckfield-road North.*
- Feb. 9, 1863 Loraine, Rev. Nevison, M.A., 1, *The Willows, Breck-*  
*roul.*

- Oct. 20, 1859 M'Andrew, James Johnston, 5, *North John-street*, and *Greenfield Cottage, Bromborough*.
- \*Oct. 21, 1844 M'Andrew, Robert, F.R.S., F.L.S., *Isleworth House, Isleworth, London*.
- April 17, 1865 MacCheane, Wm., M.R.C.S., 69, *Shaw-street*.
- March 9, 1857 McFie, Robert Andrew, 80, *Moorfields*, and *Ashfield Hall, Neston, Cheshire*.
- April 20, 1863 Marples, David, 50B, *Lord-street*, and 168, *Chatham-st.*
- Jan. 21, 1839 Martin, Studley, 80, *Exchange*, and 109, *Bedford-st. S.*
- Feb. 5, 1844 Mayer, Joseph, F.S.A., F.R.A.S., F.E.S., 68, *Lord-street*, and *Pennant's House, Lower Bebington*.
- Jan. 12, 1863 Mellor, Rev. Enoch, M.A., 15, *Devonshire-rd., Prince's-park*.
- April 1, 1861 Melly, George, 7, *Water-street*, and 90, *Chatham-st.*
- Oct. 31, 1859 Moore, Thomas John, Corr. Mem. Z.S., Curator Free Public Museum, *William Brown-street*.
- Jan. 8, 1855 Morton, George Highfield, F.G.S., 9, *London-road*.
- April 16, 1849 Moss, Rev. John James, B.A., *Upton, Cheshire*.
- Oct. 29, 1850 Mott, Albert Julius, 19, *South Castle-street*, and 51, *Rodney-street*.
- April 3, 1854 Mott, Charles Grey, 27, *Argyle-street, Birkenhead*, and 21A, *South Castle-street*.
- Oct. 20, 1856 Nevins, John Birkbeck, M.D. Lond., M.R.C.S., Lect. on *Materia Medica*, Royal Infirmary School of Medicine, 25, *Oxford-street*. VICE-PRESIDENT.
- April 7, 1862 Newlands, A., 6, *Rumford-place*, and 13, *Canning-st.*
- Feb. 6, 1865 Newton, John, M.R.C.S., 13, *West Derby-street*.
- \*Nov. 29, 1847 Nisbet, William, L.F.P.S.G., *Church-street, Egremont*.
- \*Oct. 15, 1855 North, Alfred, *Salcombe-hill, Sidmouth, Devonshire*.
- Nov. 18, 1861 Nugent, Rev. James, *Crosby*.
- Nov. 4, 1861 Philip, Thomas D., 49, *South Castle-street*, and 47, *Prospect-vale, Fairfield*.
- Dec. 28, 1846 Picton, James Allanson, F.S.A., Chairman of the Library and Museum Committee, 11, *Dale-street*, and *Sandy-knowe, Wavertree*. PRESIDENT.
- Feb. 6, 1854 Prange, F., *Royal Bank-buildings, Dale-street*, and 2, *Grove-park, Lodge-lane*.
- April 7, 1862 Rankin, Robert, Chairman of the Dock Board, 55, *South John-street*, and *Brombro' Hall, Cheshire*.
- †Mar. 13, 1812 Rathbone, William, 21, *Water-street*, and *Greenbank, Wavertree*.

- Nov. 12, 1860 Rathbone, Philip H., 4, *Water-street*, and *Greenbank-cottage, Wavertree*.
- Mar. 24, 1862 Rathbone, Richard Reynolds, 21, *Water-street*, and *Laurel-bank, St. Michael's-road*.
- \*Jan. 7, 1856 Rawlins, Charles Edward, jun., 23, *Cable-street*, and 1, *Windermere-terrace, Prince's-park*.
- \*Nov. 17, 1851 Redish, Joseph Carter, 18, *Chapel-street*, and 19, *Hope-street*.
- Nov. 2, 1840 Robberds, Rev. John, B.A., 58, *High Park-street*.
- Jan. 25, 1864 Roberts, F. T., M.B., B.Sc. Lond., M.R.C.S., *Northern Hospital*.
- Feb. 10, 1862 Rogers, Thomas Law, M.D., M.R.C.P., Superintendent, *County Asylum, Rainhill*.
- Feb. 9, 1863 Ronald, Lionel K., 19, *Dale-street*, and *Elm House, Edge-lane*.
- April 18, 1854 Rowe, James, 2, *Chapel-walks*, and 51, *Shaw-street*.
- Feb. 6, 1865 Rowlandson, William, jun., *Vauxhall Foundry*.
- Feb. 20, 1865 Samuel, Albert H., 57, *Hanover-st.*, and 2, *Canning-street*.
- April 7, 1862 Samuel, Harry S., 2, *Canning-street*.
- Jan. 11, 1864 Samuelson, James, 18, *Dale-street*, and *New Brighton*.
- Nov. 28, 1864 Scott, Rev. Edward, *Liverpool Institute*.
- Nov. 16, 1863 Sheldon, E.M., M.R.C.S., 256, *Vauxhall-road*.
- Nov. 2, 1863 Skillicorn, John E., *Whitley-terrace*, 206, *Walton-road*.
- Nov. 7, 1864 Skinner, Thomas, M.D. Edin., 1, *St. James's-road*.
- \*April 21, 1862 Smith, James, *Barkeley House, Seaforth*.
- †Mar. 13, 1812 Smith, James Houlbroke, 28, *Rodney-street*, and *Greenhill, Allerton*.
- Feb. 23, 1863 Smith, J. Simm, *Royal Insurance Office, Dale-street*.
- Feb. 24, 1862 Snape, Joseph, Lecturer on Dental Surgery, Royal Infirmary School of Medicine, 75, *Rodney-street*.
- Nov. 12, 1860 Spence, Charles, 4, *Oldhall-street*, and *Bedford-st. N.*
- Feb. 10, 1862 Spence, James, 5, *Fenwick-street*, and 10, *Abercromby-square*.
- Dec. 14, 1857 Steele, Robert Topham, 4, *Water-street*, and *Wavertree*.
- Jan. 9, 1865 Stewart, Robert E., 13, *Rodney-street*.
- May 2, 1864 Stitt, John Johnson, 17, *Water-street*, and *Elm House, Anfield*.
- Oct. 18, 1858 Stuart, Richard, 10, *Exchange-street East*, and *Brooklyn Villa, Breeze-hill, Walton*.

- \*Feb. 19, 1855 Taylor, John Stopford, M.D. Aberd., F.R.G.S., 1, *Springfield, St. Anne-street.*
- Jan. 23, 1843 Taylor, Robert Hibbert, M.D. Edin., L.R.C.S. Ed.  
Lect. on Ophthalmic Medicine, Royal Infirmary  
School of Medicine, 1, *Percy-street.*
- Dec. 11, 1854 Thompson, Samuel H., *Thingwall Hall, Knotty Ash.*
- Nov. 17, 1850 Tinling, Chas., 60, *Castle-street*, and *Bedford-terrace*,  
48, *Low-hill.*
- Nov. 26, 1860 Tooke, William H., *Church-street*, and *Wellington-  
street, Waterloo.*
- Dec. 1, 1851 Towson, John Thomas, F.R.G.S., Scientific Examiner,  
Sailors' Home, 47, *Upper Parliament-street.*
- \*Feb. 19, 1844 Turnbull, James Muter, M.D. Edin., M.R.C.P., Phys.  
Royal Infirmary, 86, *Rodney-street.*
- Oct. 21, 1861 Unwin, William Andrew, 11, *Rumford-place*, and  
*Newbie-terrace.*
- Feb. 6, 1865 Vernon, Thomas Holmes, *Woolton.*
- Feb. 6, 1865 Vernon, Walter, *Woolton.*
- Oct. 21, 1844 Vose, James Richard White, M.D. Edin., F.R.C.P.,  
Phys. Royal Infirmary, 5, *Gambier-terrace.*
- Mar. 18, 1861 Walker, Thomas Shadford, M.R.C.S., 54, *Rodney-street.*
- Jan. 27, 1862 Walmsley, Gilbert G., 50, *Lord-street.*
- Jan. 9, 1865 Walthew, William, *Phoenix Chambers*, and *Vine Cottage*,  
*Aughton.*
- Feb. 10, 1862 Weightman, John Hardham, 57, *Ranelagh-street*, and  
27, *Baker-street, Low-hill.*
- Dec. 2, 1861 Weightman, William Henry, *Leith Offices, Moorfields*,  
and *Hapsford-lane, Litherland.*
- Nov. 28, 1864 Weld, Walter, 12, *Castle-st.*, & *Moor-lane, Great Crosby.*
- Jan. 26, 1862 Whitelaw, George, *Collegiate Institution.*
- April 7, 1862 Whittle, Ewing, M.D., Lecturer on Med. Jurisprudence  
Royal Inf. Sch. of Med., 65, *Catherine-street.*
- Nov. 2, 1863 Whitty, W. Alfred, "*Daily Post*" Office, and 8,  
*Catherine-street.*
- April 7, 1862 Willans, Thomas H., 82, *Rodney-street.*
- Nov. 18, 1861 Williams, Charles Wye, A.I.C.E., *The Nook, St.*  
*James's Mount.*
- Mar. 18, 1861 Wood, Geo. S., *Belle-vue-rd, Wavertree*, and 20, *Lord-st.*
- Dec. 14, 1863 Zwilchenbart, Rodolph, jun., *Queen Insurance Buildings*,  
and 26, *Bedford-street South.*

## HONORARY MEMBERS.

LIMITED TO FIFTY.

- 1812 Peter Mark Roget, M.D. Edin., F.R.C.P., F.R.S., F.G.S., F.R.A.S.,  
F.R.G.S., &c., 18, *Upper Bedford-place, London.*
- 1819 John Stanley, M.D. Edin., *Whitehaven.*
- 1827 Rev. William Hincks, F.R.S.E., F.L.S., Professor of Natural  
History in University College, *Toronto, C.W.*
- 1828 Rev. Brook Aspland, *Dukinfield, Cheshire.*
- 1833 The Right Hon. Dudley Ryder, Earl of Harrowby, K.G., D.C.L.,  
F.R.S., *Sandon-hall, Staffordshire*, and 39, *Grosvenor-square, London W.*
- 1833 James Yates, M.A., F.R.S., F.L.S., F.G.S., &c., *Lauderdale House, Highgate, London.*
- 1835 George Patten, A.R.A., 21, *Queen's-road West, Regent's-park, London.*
- 1835 William Ewart, M.P., *Cambridge-square, Hyde-park, London.*
- 1835 The Right Hon. Lord Brougham and Vaux, M.A., D.C.L., F.R.S.,  
Chancellor of the University of Edinburgh, 4, *Grafton-street, London, W.*, and *Brougham Hall, Penrith.*
- 1836 The Most Noble William, Duke of Devonshire, K.G., M.A., F.R.S.,  
F.G.S., &c., Chancellor of the Univer. of Cambridge, *Devonshire House, London, W.*, and *Chatsworth, Derbyshire.*
- 1838 George Biddell Airy, M.A., D.C.L., F.R.S., Hon. F.R.S.E., Hon.  
M.R.I.A., V.P.R.A.S., F.C.P.S., &c., Astronomer  
Royal, *Royal Observatory, Greenwich.*
- 1840 James Nasmyth, F.R.A.S., *Penshurst, Kent.*
- 1840 Richard Duncan Mackintosh, L.R.C.P., *Exeter.*
- 1841 Charles Bryce, M.D. Glasg., Fell.F.P.S.G., *Brighton.*
- 1844 J. Beete Jukes, M.A., F.R.S., M.R.I.A., F.G.S., Local Director of  
the Geological Survey of Ireland, 51, *Stephen's-green, Dublin.*
- 1844 T. P. Hall, *Coggeshall; Essex.*
- 1844 Peter Rylands, *Warrington.*
- 1844 John Scouler, M.D., LL.D., F.L.S., *Glasgow.*

- 1844 Thomas Rymer Jones, F.R.S., F.Z.S., F.L.S., Professor of Comparative Anatomy, *King's College, London.*
- 1844 Robert Patterson, F.R.S., M.R.I.A., *Belfast.*
- 1854 Sir Charles Lemon, Bart., M.A. Cantab., F.R.S., F.G.S., *Penrhyn, Cornwall.*
- 1844 William Carpenter, M.D., Edin., F.R.S., F.L.S., F.G. S., Registrar, *London University.*
- 1847 Sir William Rowan Hamilton, LL.D., Hon. F.R.S.E., M.R.I.A., F.R.A.S., F.C.P.S., Astronomer Royal for Ireland, *Dublin.*
- 1848 Rev. Thomas Corser, M.A., *Strand, Bury.*
- 1850 Rev. St. Vincent Beechy, M.A. Cantab., *Worsley, near Eccles.*
- 1851 James Smith, F.R.S.S.L. and E., F.G.S., F.R.G.S., *Jordan-hill, Glasgow.*
- 1851 Henry Clarke Pidgeon, *London.*
- 1851 Rev. Robert Bickersteth Mayor, M.A., Fell. St. John's College, Cantab., F.C.P.S., *Rugby.*
- 1852 William Reynolds, M.D., *Coed-du, Denbighshire.*
- 1853 Rev. James Booth, LL.D., F.R.S., &c., *Stone, near Aylesbury.*
- 1857 Thomas Jos. Hutchinson, F.R.G.S., F.R.S.L., F.E.S., H.B.M. Consul, *Rosario.*
- 1861 Louis Agassiz, Professor of Natural History in Harvard University, *Cambridge, Massachusetts.*
- 1861 William Fairbairn, LL.D., C.E., F.R.S., *Polygon, near Manchester.*
- 1861 Rev. Thos. P. Kirkman, M.A., F.R.S., *Croft Rectory, Warrington.*
- 1862 The Right Rev. H. N. Staley, D.D., Bishop of Honolulu, *Sandwich Islands.*
- 1863 Edward J. Reed, Chief Constructor of H. M. Navy, *Admiralty, and Hyde Vale, Greenwich, S. E.*
- 1865 John Edward Gray, Ph.D., F.R.S., &c., *British Museum.*
- 1865 George Rolleston, M.D., F.R.S., Linacre Professor of Physiology in the University of Oxford, *Oxford.*

## ASSOCIATES.

LIMITED TO TWENTY-FIVE.

- Dec. 2, 1861 Captain James Anderson, "Great Eastern," (Atlantic.)
- Jan. 27, 1862 Captain John H. Mortimer, "America," (Atlantic.)
- March 24, 1862 Captain P. C. Petrie, "City of London," Commodore  
of the Inman Line of American Steam Packets.  
(Atlantic.)
- Feb. 9, 1863 Captain James P. Anderson, R.M.S.S. "Africa,"  
Cunard Service, *Commercial Hotel, Dale street.*  
(Atlantic.)
- Feb. 9, 1863 Captain John Carr (Bushby and Edwards,) ship  
"Scindia," 43, *Hope-street.* (Calcutta.)
- Feb. 9, 1863 Captain Charles E. Price, R.N.R. (L. Young and Co.,)  
ship "Cornwallis." (Calcutta and Sydney.)
- April 20, 1863 Captain Fred. E. Baker, ship "Niphon." (Chinese  
Seas.)
- Oct. 31, 1864 Captain Thompson, ship "Admiral Lyons." (Bombay.)
- Oct. 31, 1863 Captain Edward Berry, ship "Richard Cobden."  
(Chili.)
- Oct. 31, 1864 Captain Alexander Browne, (Papayannis) S. S. "Agia  
Sofia." (Mediterranean.)
- Oct. 31, 1864 Captain Whiteway, ship "Annie Cheshyre." (Pacific.)
- April 13, 1865 Captain Alexander Cameron (Boult, English, and  
Brandon,) ship "Staffordshire." (Shanghai.)
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PROCEEDINGS  
OF THE  
LIVERPOOL  
LITERARY AND PHILOSOPHICAL SOCIETY.

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ANNUAL MEETING—FIFTY-FOURTH SESSION.

ROYAL INSTITUTION, OCTOBER 3rd, 1864.

J. A. PICTON, Esq., President, in the Chair.

The minutes having been read and signed, the Chairman congratulated the members upon their once again meeting for business, and called upon the HONORARY SECRETARY to read the following

REPORT.

The Council of the Literary and Philosophical Society have to report a continued steady improvement in the position and prospects of the Society. Whether as regards the increase of its numbers, or of the interest taken in its proceedings, there is ample evidence that the Society is in an excellent working condition. During the past Session there has been no falling off in the attendance at its meetings, nor in the character of the papers presented and read, while the discussions which they have elicited have been no less animated and interesting than heretofore. The condition of the Society, indeed, must appear to those who carefully watch its progress

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to be highly satisfactory, and they would urge upon individual members, who have its welfare at heart, the desirability of separate, as well as of united effort, to continue the work of improvement.

The list of the Society, though steadily increasing, has not yet reached that development which we might hope to see in so populous a town. Notwithstanding, however, the removal from the roll, at the commencement of the present Session, of a number of names (by the operation of the laws), the present total shews an advance upon previous years. The list printed in the last volume of proceedings included 175 names of ordinary members, of whom 28 were life members. By resignation (9), removal (3), or death (2), we have lost of these 14; against which we have to place 25 members elected during the past Session, making a total of 186, from which, if we deduct 28 life members, we have a balance of 158 members, whose subscriptions form the income of the Society. 36 honorary members and 7 associates increase the total list to 229.

The funds of the Society show a corresponding increase, and whereas four years since they were gradually but surely depreciating, the year's expenses leaving a balance due to the Treasurer, at the present time the Society's income is not only sufficient for the ordinary expenditure without stint, but extraordinary expenses have been undertaken. The Treasurer has in hand a reserved fund of £200 (invested in dock bonds), which produces an interest varying from £8 to £10 per annum, and this, added to the income arising from subscriptions and entrance fees, and amounting to about £185, leaves him a considerable balance after the year's expenses are paid, and which will be added to the reserved fund.

During the past year we have lost by death two ordinary and two honorary members. Of the first was Mr. Thomas

Rigge, solicitor, who died January 17th, 1864. He had been ten years a member of the Society. The other was Mr. John Faram, who died in May last. He had been a member since December, 1847, and although latterly not often seen at the Society's meetings, he had formerly taken an active part in them, and read several papers.

Of the honorary members, both deserve a notice in this place. The first was Mr. John Ashton Yates, one of the original members of the Society, but who, since 1835, has been upon the Society's honorary or corresponding list. Mr. J. A. Yates was the second son of the late Rev. John Yates, who spent his life from youth to age as the able, eloquent, and highly-esteemed minister of the Presbyterian congregation in Paradise Street, Liverpool. He was put to school under the Rev. W. Shepherd, of Gateacre. He was apprenticed to the great North American firm of which William Rathbone was founder and chief. Among his co-apprentices and co-equals in age, were Thomas Thornely, afterwards M.P. for Wolverhampton, and Thomas Bolton, who, soon after the passing of the municipal reform bill, was chosen Mayor of Liverpool. In commercial, public, and private life these three were attached friends to the end of their days; and they were all removed from this earthly scene within a very short space of time. Mr. A. Yates' active habits as a Liverpool broker were varied, and relieved by the study of literature and the fine arts, in which he met with abundant encouragement and assistance, not only under the paternal roof, but in the society of some of his neighbours, and especially of the eminent William Roscoe. He made a very valuable collection of engravings, and of paintings by old masters, which still attest his knowledge and taste, forming one of the finest private minor collections in the metropolis. Mr. A. Yates also devoted great attention to political economy, making himself master of the subject both

by reading and by conversation with the chief promoters of the science. In this line he published "A Letter on the Distresses of the Country," 1817; "Colonial Slavery," 1824; "Essays on Currency and Circulation," 1827; "A Letter on the present Depression of Trade and Manufactures, addressed to the Landowners and Farmers of the county of Carlow," 1841. At the time of their first appearance these pamphlets received warm approbation from Mr. Huskisson and many other well-informed politicians. On the passing of the Reform Bill Mr. Yates was naturally looked to as a man well fitted to work out and secure its advantages. He stood for Bolton, in his native county, but lost his election. At the next general election Mr. Yates was a candidate with Mr. Vigors for the county of Carlow, and they were returned together. Mr. Yates' activity of mind and capacity for social enjoyment continued to within two years of his death. He then became a patient sufferer, losing his memory, but always gentle, kind, and grateful to all around him. He died on Sunday, November 1st, 1863, æt. 82, at the Park, near Manchester, the residence of his son-in-law, (Robert N. Philips, Esq.), and his death is the severance of another link of the Society with its founders in 1812, of whom only two now remain, viz., Mr. William Rathbone and Mr. James Houlbrook Smith, if, indeed, we can except Mr. John Andrew, of Rivington, not now a member.

The other honorary member whom we have lost during the past year was Sir William Brown, Bart. (born May 4, 1784, died March 3, 1864), elected an honorary member of this and of several other literary and scientific societies on the occasion of the opening of the Free Public Library, in October, 1860. This distinction was given to the deceased baronet more particularly upon the ground of his liberal foundation of the Gallery of Inventions and Science at the Free Public Museum. Finding that the Museum was so arranged that no space was

left at liberty for the display of models of inventions, scientific instruments, and articles of utility to the public, he resolved to erect spacious galleries for the purpose, and to place them, as far as he had it in his power, under the control of the five societies referred to. The gallery was opened on the 10th of March last year, and was visited by half-a-million persons during the first nine months. The Library Committee have also agreed to the opening of the gallery on Monday evenings, between seven and ten, when an average of sixteen hundred persons are found to visit it. It has been rendered highly attractive, and appears to have enlisted a considerable share of public favour. The Great Exhibition case of raw produce has been added to the collection, and forms a feature of great interest and practical utility.

The proposal to celebrate the tercentenary of the birth of Shakspeare, which originated in this Council at its last annual meeting, was followed by an invitation to the other Societies to co-operate for this object. It was decided that such a commemoration should not be limited to any societies, and accordingly the Mayor was requested to call a public meeting to take into consideration the necessary ways and means. Ultimately the occasion was celebrated in a manner worthy of it, and the balance arising from the proceeds was handed over to the Royal Literary Fund.

The Society's annual dinner was held at Childwall Abbey on the 2nd of June. The fortunate state of the weather contributed considerably to render it a very successful gathering, with no drawback, save that his worship the Mayor, who had accepted the invitation of the Council, was prevented by illness from being present on the occasion.

The Society's bookcases have been completed, and the Catalogue is in a forward state. It is hoped that in a very short time all difficulties of access to them will have vanished.

The volume for the past Session will soon be in the hands

of the members, and will be found not inferior to its predecessors. It is the desire of the Council to raise the standard of the papers which appear in the Proceedings, so that they may take rank with the best productions of other similar societies; and with that view a careful attention is given to each paper by the Printing Committee, before it is recommended that it shall appear in the volume. It is strongly urged that members reading papers will always write them with a view to publication, and with that intention render them as original and scientific as possible. It should not be lost sight of that the Literary and Philosophical Society is one for the *advancement* of knowledge, and not for the mere *diffusion* of learning, and that, therefore, only such papers as can be said to increase the boundaries of science or literature have any claim to be admitted into its published Transactions.

It now only remains, in accordance with Law 36, for your Council to recommend five gentlemen for election to fill the places of five who retire, and they have selected the following, viz.:—Rev. W. Banister, Mr. F. W. Bloxam, Mr. W. A. Unwin, Mr. C. Clark, and the Rev. Dr. Baar.

(Signed)

J. A. PICTON, F.S.A., President.

C. COLLINGWOOD, M.A., Hon. Sec.

It was moved by Mr. GREENWOOD, seconded by Mr. W. H. WEIGHTMAN, and carried, "That the Report now read be adopted."

The Treasurer then presented the balance-sheet, which exhibited a surplus of £57 after all this year's expenses had been paid, as well as a reserve fund of £200.

It was moved by Mr. F. ARCHER, jun., seconded by Mr. J. M. DOVE, and carried, "That the accounts now audited and presented be passed."

The following officers were then elected in the usual manner:—

*President:*

J. A. PICTON, Esq., F.S.A.

*Vice-Presidents:*

Rev. C. D. GINSBURG, LL.D.

J. BIRKBECK NEVINS, M.D.

J. BAKER EDWARDS, Ph.D. F.C.S.

*Treasurer:*

I. BYERLEY, Esq., F.L.S.

*Hon. Secretary:*

Dr. COLLINGWOOD.

The following gentlemen were also elected members of the Council:—

Mr. A. Higginson, Rev. H. H. Higgins, Rev. J. Robberds, Rev. Joshua Jones, Rev. W. Banister, Mr. C. Clark, Mr. F. W. Bloxam, Rev. Dr. Baar, Mr. W. A. Unwin.

The delegates from the Society to assist in the management of the Gallery of Inventions and Science were then appointed.

The Associates of the Society were re-elected on the recommendation of the Council, and several new Associates proposed.

Mr. W. Horseman Kirkby was balloted for, and elected an ordinary member, and several new members were proposed.

A large number of donations were laid upon the table, and the thanks of the Society were voted to the donors.

## FIRST ORDINARY MEETING.

ROYAL INSTITUTION, October 16th, 1864.

J. A. PICTON, Esq., PRESIDENT, in the Chair.

Dr. J. E. Gray, F.R.S., British Museum, and Professor Rolleston, M.D., F.R.S., Oxford, were balloted for, and duly elected Honorary Members.

The Rev. H. H. HIGGINS exhibited a collection of inscribed palm leaves obtained from Rangoon, in Burmah, by Captain C. E. Pryce, Associate of the Society. The writing upon them was in the Pali language, and was illustrated by a beautiful illuminated work upon similar inscriptions from the Free Public Library.

Mr. PICTON observed that a beautiful and perfect Egyptian papyrus had been submitted to him during the recess by a Greek merchant of Liverpool, and had since been purchased by the British Museum.

The Rev. W. BANISTER, in presenting a pamphlet by Mr. C. Wye Williams, "On the Steam Generating Power of Marine and Locomotive Boilers," made some remarks upon the change of construction proposed by Mr. Williams, by which a large saving of fuel was effected. These boilers have been in experimental action at the City of Dublin Steam-packet Company's works at Canada Dock, and the chief constructor of the navy, Mr. Reed, had so high an opinion of the value of the new boilers that he proposed adopting them in her Majesty's navy.

An animated and interesting discussion followed these remarks, which lasted for a considerable time, and which Dr.

Nevins commenced, by describing, by the aid of a diagram upon the board, the nature of Mr. Wye Williams's invention. He was followed by Mr. J. M'Farlane Gray, Mr. Picton, Mr. Higginson, Rev. Joshua Jones, Mr. A. J. Mott, Dr. Collingwood, Mr. J. M. Bennett, and Mr. Birch.

Mr. GREENWOOD exhibited, on behalf of Mr. J. G. Hollingworth, of Sandon Street, a valuable and interesting collection of ancient documents, which attracted considerable attention. The following were among the chief, many of them having royal signs manual upon them :—A deed, dated June 10th, 1863 ; a recovery, reign of Charles II. ; a fine, 23rd January, 19 Elizabeth, 1576 ; alienation, 24th April, 15 Elizabeth, 1573 ; alienation, 1st December, 20 James, 1623 ; deed of 23rd January, 1656, Oliver, Lord Protector ; bond for a loan of £500 from George, Prince of Wales, 20th September, 1790, also signed by Frederick, Duke of York, and William, Duke of Clarence ; 15th July, 1771, letter from D. Garrick to Earl Lisburne ; 15th November, 15 Chas. II., 1662, letters patent ; MS. account of the expenses of the Duchess of Buckingham's funeral, from Buckingham House, St. James's Park, to Westminster Abbey, 8th April, 1743 ; 13th May, 1798, letter from Sheridan ; King James, sign manual ; King Charles, sign manual ; letter from Lord Rodney ; 16th November, 35 Elizabeth, a grant.

Mr. MOORE exhibited numerous specimens from the Derby Museum, including a fine skeleton, recently mounted, and measuring fifteen feet in length, of the *Globiocephalus svineval*, known to sailors and others as the black-fish, pilot-whale, bottle-head, &c. The skin of the same animal is also mounted in the Museum. The specimen was taken with some forty others in the Humber, in June, 1862. The skeleton of Johnson's hump-backed whale, *Megaptera longimana*, measuring thirty feet in length, taken in the Mersey in July, 1863, and presented by Mr. Brock, has also been

lately mounted, and the more striking differences between the two were pointed out.

Mr. MOORE also exhibited a stuffed specimen of the Bat fish, *Platax vespertilio*? part of a collection lately presented to the Museum by Captain Mackay, of the ship "Bedfordshire;" also specimens in spirit of the same genus, forming part of a very extensive and valuable collection of fish, &c., from Singapore, presented by Robert Baker, Esq.; also specimens of a new genus of frogs, forming part of a large collection of Natural History specimens collected at Lagos and the neighbourhood, by R. B. N. Walker, Esq., and presented by him to the Museum. This is an instance of the additions, often important, that may be made to science by collecting the commonest objects of a district, as they are so generally neglected as often to be the least known. These frogs were found in abundance, in the tadpole state, in a pond adjoining the garden of Mr. Walker's residence, and on some of them being submitted to Dr. Gray, of the British Museum, he immediately described them (in the annals of Natural History for this month) as a new genus, under the name of *Silurana tropicalis*. They present a remarkable resemblance to certain fish of the Siluroid family, in the peculiar flat form of the head, and in the possession of long filamentous or beard-like processes from the lips. Also a living specimen of the alligator tortoise, or terrapin, *Chelydra serpentina*, brought over with several other North American tortoises, by Captain Anderson, of Richmond Terrace, Associate of the Society; also examples of ten species of small *Cephalopods*, or cuttle fishes and squids, and a specimen of the rare genus *Cranchia*; also some fine specimens of *Pyrosoma*, which in the living state are highly luminous, forming part of a rich and interesting collection of small marine specimens from the Atlantic and Pacific, collected and presented by Captain Whiteway, ship "Annie Chesshyre," proposed as an Associate

of the Society ; also a series of twenty-one species of the delicate and beautifully transparent shells of *Pteropoda* and *Heteropoda*, obtained by skimming the surface of the sea during the same voyage by Captain Whiteway, and by him presented to R. J. Keen, Esq., by whose kindness they were now exhibited. So large a series is probably unrivalled in a private collection as the result of a single voyage.

Mr. MOORE also reported the occurrence of the short sun-fish *Orthogoriscus mola* at Southport. This is the first recorded instance of its capture in the Liverpool district. The skeleton has been obtained through Alderman Woodruff for the Museum. Also, the capture of a fine specimen of *Rossia macrosoma* at Egremont, of which only one or two specimens have been previously taken in the district. Also, specimens of a very delicate and beautiful little crustacean, the *Pasiphaea sivado*, very rare in the Mersey. Also, a large specimen of the angel fish, *Squatina angelus*, taken in Liverpool Bay, and of which Mr. Byerley only records a single example, which was thrown ashore during a storm. The recent occurrence in the Mersey of three very large specimens of the angler fish, *Lophius piscatorius*, within as many weeks, was also mentioned, and the good service that would be done by the destruction of these ravenous monsters, which prey most greedily upon good edible marketable fish, of which they destroy large quantities. Mr. Isaacs had informed him of one instance, in which several pairs of soles were taken from an angler's stomach ; and one instance had come under Mr. Moore's own observation, where a fourteen-pound codfish had been swallowed whole ; and another, where two conger eels, two feet in length, and a large fluke, met with a similar fate ; and almost every specimen taken will afford similar evidence of their destructiveness.

## SECOND ORDINARY MEETING.

ROYAL INSTITUTION, October 30th, 1864.

The Rev. C. D. GINSBURG, LL.D., VICE-PRESIDENT,  
in the Chair.

Mr. Thomas Jevons, Mr. William Fearenside, and Mr. William Bromham were balloted for and duly elected members.

The following gentlemen were elected Associates of the Society, on the recommendation of the Council:—Captain Thompson, ship "Admiral Lyons;" Captain Edward Berry, ship "Charmer;" Captain Alexander Browne, steamship "Agia Sofia;" and Captain Whiteway, ship "Annie Chesshyre."

The SECRETARY read letters from Dr. John Edward Gray, F.R.S., British Museum, and Professor Rolleston, F.R.S., Oxford, who were elected honorary members of the Society at the last meeting, acknowledging the distinction.

Dr. NEVINS explained, and illustrated by some curious sections and drawings, the remarkable form assumed by the stems of tree ferns, whereby, although they only grow by their summits, they appear to be thicker at the base or commencement of growth than higher up the stem, owing to the accumulation of *ramentum* about the base to afford support to the superstructure.

Mr. MOORE exhibited a specimen of the *Hippocampus*, or sea horse, in spirit. It was captured on the coast of Nantucket, Massachusetts, by Captain Mortimer, of the ship

"America," an associate of the Society, on his voyage to New York. It was there described by Colonel Pike as a *new species*, under the name of *Hippocampus Mortimeri*, in honour of the discoverer, who endeavoured on his return voyage to bring it alive to the Derby Museum, but unfortunately it died the day before the vessel reached Liverpool.

At the conclusion of the miscellaneous business, Dr. Nevins, Vice-President, having taken the Chair, a paper was read

## ON THE ANCIENT VERSIONS OF THE BIBLE.

BY THE REV. C. D. GINSBURG, LL.D.

This paper will appear in the succeeding volume.

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## THIRD ORDINARY MEETING.

ROYAL INSTITUTION, November 13th, 1864.

J. A. PICTON, Esq., PRESIDENT, in the Chair.

Ladies had been invited to this meeting, and, notwithstanding the inclement nature of the weather, there was a large attendance.

The PRESIDENT, in welcoming the visitors for the evening, said :—

LADIES AND GENTLEMEN,—It gives me great pleasure to welcome here this evening his Worship the Mayor, Edward

Lawrence, Esq., whose election to the office of chief magistrate has met with the cordial approval of all parties. Mr. Lawrence is a gentleman of education, and has given high promise, by his conduct in his public as well as in his private capacity, of the manner in which the functions of the mayoralty will be discharged during the ensuing year. It is a great pleasure and satisfaction to us that Mr. Lawrence should show his desire to encourage literature and science, by making his appearance here to-night the first public act of his official life. I will not ask Mr. Lawrence to become a member, but I feel sure that, whether a member or not, his presence here to-night proves that he will be a well-wisher of the Society, and I call upon the members to thank his worship for the countenance he has so readily given us.

The MAYOR briefly replied to the President's remarks, thanking the Society for the welcome they had given him, and adding that the countenance of his official position would always be readily accorded to an institution such as that whose members he now addressed, the object of which was the encouragement of literature and science. With regard to the fact of his visit to the Literary and Philosophical Society being his first public act, he could not do better, and he thus was willing to show his interest in their labours. He himself felt considerably indebted to a kindred society, for it was in the Chatham Society that he learned whatever facility in public speaking he had been successful in achieving. But whether a member of this Society or not, he assured them that he appreciated their labours and felt an interest in their success.

Mr. Henry Imlach, jun. and Mr. J. M. Bennett were balloted for and duly elected members of the Society.

The Rev. H. H. HIGGINS exhibited a specimen of *Geaster hygrometricus*, recently found on a bank at Rainhill, growing upon a portion of a decayed root of a beech tree; and

remarked that all the larger species of earth-stars, or starry puff-balls, are uncommon. The present constitutes the fourth species of *Geaster* found in the neighbourhood of Liverpool. It is very rare in England, though common on the Continent.

Mr. MOORE exhibited from the Derby Museum numerous specimens of living North American fresh-water fish, and preserved specimens of the *Physalia*, or Portuguese man-of-war, and other marine specimens from the North Atlantic, imported and presented by Captain Mortimer, ship "America," Associate of the Society. The living fish belong to the following species:—Rock sun-fish, *Pomotis vulgaris*; pale sucker, *Catostomus pallidus*; shining dace, *Leuciscus nitidus*; and brown cat-fish, *Pimelodus pullus*. Of the *Physalia*, Captain Mortimer had succeeded in the difficult task of effectually drying several specimens, one being of large size, measuring  $6\frac{1}{2}$  inches in the long diameter of the float, which in this and the other specimens remained fully inflated. Dried specimens of *Porpita* and *Velella* were also preserved by Captain Mortimer, and several specimens preserved in spirit, including an extremely large frog-fish, which had been kept some time alive on board ship; also small *Physalie*, and great numbers of *Pteropods*.

The Rev. H. H. HIGGINS warmly complimented Captain Mortimer on his continued success in collecting, especially those minute inhabitants of the ocean which are so generally neglected, and indeed Captain Mortimer was the first man sailing from the port of Liverpool who thought them worthy of attention.

Mr. MOORE stated the living fish had been safely brought through one of the stormiest passages ever experienced by Captain Mortimer, by that gentleman's original and exceedingly simple method of carrying them in fish globes suspended in the cabin like ordinary ships' lamps—a plan which has

been recommended to other captains with successful results. The specimens exhibited are valuable and interesting additions to the Museum aquaria. Other preserved specimens, and some interesting notes by Captain Mortimer, are reserved for a future meeting.

. Dr. COLLINGWOOD remarked on the success which had attended the Society's efforts to induce officers of the mercantile marine to use the advantages of their position in promoting the interests of science.

The Rev. Dr. GINSBURG, Vice-President, having taken the Chair, the following paper was read :—

## THE SOUTH LANCASHIRE DIALECT.

By J. A. PICTON, F.S.A., PRESIDENT.

THE South Lancashire dialect, of which I propose to treat in the following pages, has often been brought under public notice, from the time of Collier, a little more than a century ago, to the present day. Although I cannot undertake to throw much additional light on the subject, I may yet be able to bring together into one focus information derived from a variety of sources, scattered over a wide field, and requiring no inconsiderable amount of investigation to collect and assimilate. Every study has various aspects, and it is quite possible that the humblest student may be able either to contribute additional facts, or in some other way to add to the interest of the inquiry.

By many educated persons dialects are considered as mere vulgar corruptions of the current language of the country, equivalent to the cant or slang phrases which obtain currency from time to time in particular classes of society in our great towns. This is an error which it is very desirable to eradicate. Max Müller, the great authority in the modern science of language, remarks on this subject:—"It is a mistake to imagine that dialects are everywhere corruptions of the literary language. Even in England, the local patois have many forms which are more primitive than the language of Shakspeare; and the richness of their vocabulary surpasses on many points that of the classical writers of any period. Dialects have always been the feeders, rather than the channels, of a literary language; they are parallel streams, which existed long before one of them was raised to that

temporary eminence which is the result of literary cultivation.”\*

As the English dialects pass gradually one into another according to locality, it is not easy rightly to estimate their precise number, but there are certain broad lines of demarcation which are sufficiently obvious. A rough but pretty strong line of division may be drawn along the Humber and the Mersey. The dialects to the north of this line are rougher and coarser than those of the south; but, in compensation, they possess a force and strength which the southern can hardly reach. These differences are not corruptions which have crept in with the course of time; they have always existed, from the settlement of our forefathers in the country.

During the fourth, fifth, and sixth centuries, and even down to the eleventh, England was gradually becoming peopled by tribes of Teutonic origin from the opposite side of the German Sea, who elbowed out by degrees the Celtic inhabitants so thoroughly, that, with the exception of the mountains and rivers, scarcely any of our localities retain their Cymric names; though, as we shall see hereafter, a larger amount of the Cambrian tongue has passed into our language than is generally supposed. These settlers were of various races, the principal of which are handed down to us as Angles, Saxons, and Geats or Jutes. It is probable in the nature of things, and is confirmed on examination, that these races occupied in England the same relative position as they had done in their own country previously, that is, that those living furthest to the south settled in the south of England, and that those from the north of Germany, especially from Holstein and Angel-land, settled in the north. The Jutes—which is only another name for the Goths—contributed the smallest number of immigrants, and settled

\* Lectures on the Science of Language, p. 49.

in the Isle of Wight and on the south coast. The Saxons were the next in number, and peopled more especially the districts south of the Trent. The country north of the Humber was settled by the Angles, and the middle band between the Trent and Humber constituted a border land, occupied in part by both races.

That these three great dialectical divisions have always existed there is ample evidence, but in the literary remains of the Saxon and early English periods they are not very strongly marked, from the fact that a certain literary standard was soon arrived at, from the paucity in those early days of men of letters, and from the intercommunication between them. Ralph Higden, writing about 1350, recognises the three divisions as existing in his time. Robert of Gloucester's *Chronicle* and *Layamon's Brut* are both West Saxon in their peculiarities. *Piers Ploughman* is decidedly Anglian in his dialect. His poems, written about the middle of the fourteenth century, are constructed on the alliterative principle of the Anglo-Saxon verse, *e. g.*—

“ In a somer seson,  
Whan softe was the sonne,  
I shoop me into shroudes  
In habite as a heremite.”—*Vision*.

To this there seems to be some allusion, as a northern peculiarity, by Chaucer, writing a little later in the century. In the *Persone's Tale* he says—

“ But trusteth wel, I am a *sotherne* man ;  
I cannot geste ‘rom, ram, ruff’ by my letter,  
And, God wote, rime I hold but litel better.”

In the *Reve's Tale* the two “poure scoleres,” who are said to have been born

“Fer in the North, I cannot tellen where,”

are made to speak in the Yorkshire dialect.

These scattered indications, with others which might be mentioned, show that in every stage of our language these dialectical varieties have been recognised.

Before entering upon the dialect of our own county, I would call attention briefly to the peculiarities of the dialects of the other divisions, as now existing. Beginning with the south, let us glance at the Dorsetshire dialect, so ably illustrated by Mr. Barnes. The countryman has been comparing the town with the pleasures of rural life, and thus concludes—

“ Zoo teäke vor me the town a-drown'd  
 'Ithin a storm o' rumblen sound.  
 An' gie me väices that do speäk  
 So soft an' meek to souls alwone,  
 The water gurglen round a stwone,  
 An' birds o' dae a zingen clear,  
 An' leaves that I mid sit an' hear  
 A-rustlen near when brids be still.” \*

The dialect of Devonshire is very characteristic of the West Saxon, which usually substitutes the soft medials for the sonant letters of the north ;

“ I was wan neart reding a story book about spirits, that com'd and draw'd back the curtains at the bed's voot. The clock had beat wan, when an owl screeched 'pon the top o' the chimley, and made my blood rin cold. I zim'd (thought) the cat zeed zummot ; the door creaked, and the wind huldered (howled) in the chimley like thunder. I prick'd up my ears, and presently zummot very hurrisome went dump, dump, dump ! I would 'a geed my life vor a varden. Up I sprung, drow'd down my candle, and douted (extinguished) 'en, and hadn't a blunk o' fire to teen en again. What could es do ? I was afeeard to budge. At last I took heart, and went up steears backward, that nort mert catch me by the heels. I didn't unray (undress) myself vor the neart, nor teen'd (shut) my eyes, but healed (covered) up my head in the quilt, and my heart bump't zo, ye could hear en, and zo I lied panking (panting) till peep o'day.” †

\* Barnes's *Homely Rhymes*. Second Series, 1859.

† Mrs. Gwatkin, *Devonshire Dialogues*, 1839.

The following is a slight shred of the South Saxon speech—

“Set 'n down and let 'n stand; come agin and fet 'n anon.”\*

We will now turn to the extreme north, and present the following specimen of the dialect spoken in “Canny Newcassel.” The popular song, of which I give one stanza, describes the visit of a Newcastle Collier to London. Amongst other sights he says—

“We went big St. Paul’s and Westminster to see,  
And aw war’nt ye aw thought they luick’d pretty,  
And then we’d a keek at the monument tee,  
Which maw friend ca’d the pearl o’ the city;  
Way, hinny, says aw, we ’ve a shot tower sae hee  
That biv it might scraffle the heaven,  
And if on St. Nich’las ye once cas an e’e  
Ye’d crack on ’t as lang as ye ’re livin’!

’Bout Lunnun then divent ye myck sic a rout,  
There’s nouse there maw winkers to dazzle,  
For a’ t’e fine things ye are gobbin about  
We can marra iv canny Newcassel.”

The following is a fair specimen of the Cumberland speech—

“When we had gean aboot five mile, we com to an yale hoose  
whaar they wor tae be cock feightin, for it wur Pankeak Tuesda’.  
Theear stew’d at dure three young men; I kent ’em aw. ‘Whaar’s  
tau gaain,’ ses they. ‘To Sebber,’ sed I. What mes tae cum  
this way?’ ‘I ’ve summut to leaav,’ sed I. ‘What haesta i’ the  
cart?’ sed they. ‘Woo,’ sed I. ‘Woo,’ sed they, and wi’ that  
they com aboot it. I naw began to be freeten’d; yan on em  
tewk haud o’ ma, and sweaar I sud drink wi’ em.” †

We will next turn to the North Riding of Yorkshire. The following is from a letter written by a Yorkshireman who had paid a visit to London—

\* W. D. Cooper, *Sussex Gloss.* 1836.

† *Westmoreland and Cumberland Dialect*, p. 27.

"I send to let te kna tat I got galy endwaies, but feafully ill tired. I fand it a faul long muckky griselee wey toot, on a whaint huge reeky blac spot, wen ye 'cum at it, bud it hounds a mas o' fouks, nit yan at I ken. First seet I sa was a lile oud wummun we a mandful (basketful) of barn lakens \* (children's toys or presents). Wa, sed I, what's tat? Nesht seet I sa, war a girt hugh kirk, waud about wi' iron; it lukt like ony girt crag. Then I met a girt clunterlee fello wi' a bottil (bundle) of besoms teed on his back; tey were mead o' woo garn; he caud um spun mops. Then I mop't up into a mirk ginnel (dark passage), an I sa a blinnd man wi his back up ogeean a wo: he beg'd hopenies."†

But it is time to enter upon the proper subject under discussion. The first edition of Collier's *Tim Bobbin* was published in 1746. The following extract may therefore be taken as a fair specimen of the South Lancashire dialect about a hundred and twenty years since:—

"A tealier e Crummel's time wur thrunk pooing turmits in his pingot (croft), on fund en urchon ith' had-loont-reean (headland gutter); he glendurt (glowered, stared) at 't lung, boh cou'd mey nowt on 't. He whoav't (heaved, threw) his whisket oer 't, runs whoam, an tells his neighbours he thowt in his guts ot he'd fund a think at God newer mede eawt; for it had nother heeod nor tele, hont nor hough, midst nor eend. Loath to believe this, hoave a duzz'n on um would geawt see if they cou'dn mey shift t' gawm (understand) it, boh it capp'd um aw, for they never o won on um e'er saigh th' like afore. Then theyd'n a keawnsil; an th' eend out wur ot tedin fotch a lawm fawse (false, Lanc. for acute) owd felly, het on elder (called an elder), ot cou'd tell oytech think; for they look'nt on him as th' hammil-scoance (village-lamp), and thowt he 'r fuller o' leet thin a glow-worm. When theyd'n towd him th' kese, he stroakt his becart, sowght (sighed), an ordert th' wheelbarrow with spon-new trindle t' be fotcht. 'Twur dun, an they beawlt'nt him away to th' urchon in a crack. He glooort at

\* "Gregorius ascende eac Augustine halige Iac."

Gregory sent also to Augustin holy presents.

*Anglo-Saxon Homily on St. Gregory.*

† Dialect of Craven. 2 vols. 1828. Vol. ii. p. 36.

it a good while; droyd his becart down, an wawtit (turned) it o'er wi' his crutch. 'Wheel meh obeawt ogen oth' tother side,' sed he, 'for it sturs, and be that it shou'd be whick.' Then he dons his spectacles, steart at it ogen, an sowghing sed, 'Breether, its summot; boh feather Adam nother did nor cou'd kersun it; wheel me whoam again.'"

During the century which has elapsed since Collier published his book, the Lancashire dialect has undergone considerable changes. Many of the expressions introduced by him were becoming obsolete even in his time, and with the advance of education, and, of late years particularly, by the constant intercourse with other parts of the country, a great approximation has been made to the standard English of the day. The open broad rough pronunciation, and the propensity to contractions, still continue. This will be seen in the following extract from the "Okeawnt oth' Greyt Eggshibishun," by "O Felley fro' Rachde," which may be considered as the popular dialect of the present day.

The "Felley" is sight-seeing at the Exhibition, when he relates the following occurrence:—

"O mon coom un keawrt hissel osoide o' me, un aw sed, 'This is o grand consarn, Maistur, isn't it?' E sed, 'It's grandest seet ug evur aw seed e maw loife.' E sed, 'Dun yo see weer that wattur fizzus op—aw meyn th' krystil fountain?' Aw sed, 'Ah, aw doo.' 'Wel,' e sed, 'that owd chap us stons theere, we leet-culurt breeches un leggins on, us maw fatthur, un e's beaun fur 't goo back we me; we coome t'gether bwoth on us.' Aw sed to him, 'Aw say;' un e sed, 'Wat dus t' sa?' 'Waw,' aw sed, 'awl bet thee sixpennurth o' veyle pye us aw con guess weere bwoth thee un thee fatthur comn fro.' 'Dun we thee,' e sed. 'Well then,' aw sed, 'to come to th' point, yo'r Bowtun trotters.' 'Heaw the dickons cou'd you foind that eawt?' e sed, un e stayrt at meh loike o stickt sheep. 'Waw,' aw sed, 'I know'd in o minute when aw yerd thee tauk obeawt wattur and fatthur.' Aw sed, 'Awme o Rachde felley, un we're meeterly fawse theere, aw'l warrunt te. Neaw,' aw sed, 'aw'l tell thee heaw fir't foind eawt Bury folk—

un that 's noan so far far fro Bowtun, theaw knows. When they 're talkin obeawt o chap gooin ony wheere, they olis sen e 's beawn fut t' goo; un they axen him i' this road, Wheere are t' beawn for t' goo? "

It will be observed that, whilst in the extract from Collier many words require explanation, in the latter there is scarcely one which is not ordinary current English, the variation being merely in the pronunciation.

We have next to consider what is the Lancashire dialect? in what respect does it differ from the standard language of the country? what are its peculiar characteristics? whence did they originate? and how have they been developed? The first step in the inquiry is to clear the ground by ascertaining what the dialect is not. It is not mere vulgarity and coarseness; these may exist in every dialect and form of speech. Being the language of the common people, it expresses plainly, and it may be occasionally somewhat coarsely, their every-day thoughts and mode of life; but there is no essential vulgarity connected with these, any more than with the broad Scots dialect of Burns or Scott.

Some persons, in their attempts to write the dialect, make it principally to consist in mis-spelling common words. "The modern books in our 'Leod-cwyde' exaggerate its difficulties by purposeless mis-spelling; thus kole, blak, saime, farely, noboddi, minnit, notis, forin kuntry, and endless other divergences from the conventional mode of writing, without affecting the pronunciation, are to be deprecated."\* There is no greater transgressor in this respect than the "Rachda Felley," though in other ways his work is much to be commended.

The leading characteristics of the South Lancashire dialect may be comprised under the following heads:—1. Obsolete and peculiar words and phraseology. 2. Peculiar grammatical

\* T. Heywood On the South Lanc. Dialect, Chetham Society's Papers, vol. 57, p. 8.

forms. 3. Peculiar contractions in the combination of words.  
4. Peculiarity of pronunciation. To illustrate these characteristics, and to trace them as far as practicable to their origin, is the object of the following remarks.

I have already made allusion to the slow process by which the supersession of the Celtic by the Teutonic race was effected in this country. We cannot suppose that the whole of the original inhabitants were exterminated; and if they were absorbed into the invading race, it is natural to expect a greater or less infusion of the Celtic element in our language. This is much greater than is usually supposed. "The stoutest assertor of a pure Anglo-Saxon or Norman descent is convicted by the language of his daily life of belonging to a race that partakes largely of Celtic blood. If he calls for his *coat* (W. *cota*), or tells of the *basket* (W. *basged*) of fish he has caught, or the *cart* (W. *carr*, a sledge) he employs on his land, or of the *pranks* (W. *prank*, a trick) of his youth, or of the *prancing* (W. *prancio*) of his horse, or declares that he was *happy* (W. *hap*, fortune) when a *gownsmen* (W. *gwn*, a robe) at Oxford, or that his servant is *pert* (W. *pert*), he is unconsciously maintaining the truth he would deny."\*

If this was the case generally throughout England, the same causes operated with greater intensity in Lancashire, situated between the Cymry of North Wales and the Cumbrian kingdom to the north. The nomenclature of the leading features of the county sufficiently testifies to this. The mountains of Pen-y-gant, Whernside, Pendle-hill; the rivers Irk (a rapid stream), Irwell (a winding stream), Douglas (black and blue), Calder (probably muddy), Darwen (a meadow stream), Wyre (pure, lively), Derwent (a meadow stream), &c., continue the remembrance of the Celtic race;

\* Rev. Jno. Davies On the Races of Lancashire, Phil. Society's Trans. 1855. p. 211.

and many local names, such as Catteral (cat rhail, an encampment), Werneth (a swampy meadow), Eccles (eglws, a church), Carnforth (the road by the cairn), Bryn (an eminence), Penketh (the head of a pass), Rossall (a moor), &c., point in the same direction.

The following list gives a few specimens of words peculiarly Lancashire, derived from the Cambrian :—

Brat, a child's apron ; Welsh, *bratt*, a clout or rag : found also in Anglo-Saxon, as *bratt*, a cloak.

Bragot, spiced ale, usually prepared at Mid-Lent ; W. *bragod* or *bragawd*, *brag*, malt.

Brock, a badger ; W. *brocc*, a dark grey or grisly colour ; found also in A. S. *broc*, a badger.

Bawsand, streaked with white on the face ; W. *bawsin*, a badger.

Awse, or Oss, to try, attempt ; W. *osi*.

"Theaw doesn't *oss* furt' do it."

Flasket, a large wicker basket ; W. *fflasged*.

Fadge, a burden ; W. *ffasg*, a bundle.

Cam, crooked, awry ; W. *cam*.

Hattock, a shock of corn ; W. *hadak*.

Cleaw, or Clow, a floodgate ; W. *chwdd*, a dike.

Ceawer, to squat ; W. *curian*.

"Let's *ceawer* us deawn oth' yearth a bit."—*Tim Bobbin*.

Clutter, to gather in heaps ; W. *cluder*, a heap.

"Awth teawn wur *cluttert* obeawt us."

Brog, a swamp ; W. *brwg*, a brake.

Whop, to hit hard ; W. *chwap*, a smart stroke.

Crap, money ; W. *crob*, a heap.

Craddins ; to lead craddins or craddies, is to lead on some bold adventurous feat ; W. *crad*, vigour.

Cob, to strike ; W. *cob*.

Bawtert, dirty, soiled with mud ; W. *baw*, dirt, mire.

Berr, force ; W. *bar*, anger, wrath.

Boggart, a ghost ; W. *bug* or *bugan*.

Breed, frightened ; W. *braw*, terror, fright.

- Creawse, lustful ; W. *cres*, heating, inflaming.  
 Fog, after-grass ; W. *ffwg*, dry grass.  
 Foomart, a polecat ; W. *ffwlbart*.  
 Greece, stairs ; W. *gris*.  
 Gry, an ague fit ; W. *crynn*, to shake.  
 Gullion, a worthless fellow ; W. *guill*, a vagabond.  
 Hooant, a swelling from inflammation ; W. *huan*, the sun.  
 Howse, to stir up ; W. *honsio*, to brandish.  
 Hig, a passion ; W. *igian*, to sob, sigh.  
 Jim, or Jimp, neat, spruce ; W. *gwymp*, beautiful, neat.  
 Piggin, a small wooden vessel ; W. *picyn*.  
 Lithe, to thicken broth or milk with oatmeal ; W. *lith*, meal soaked  
 in milk or water.  
 Lick, to cudgel or beat ; W. *llachiau*.  
 Lob-cock, a great idle person ; W. *llob*.  
 Mog, to move off quickly ; W. *mwchio*, to hasten.  
 Mullock, dirt, rubbish ; W. *mulwch*.  
 Mychin, out of humour ; W. *micio*.  
 Natter, to gnaw ; W. *naddu*, to hew, cut, or chip.  
 Orril, mad, frenzied ; W. *rhull*, rash, hasty.  
 Pantle, a snare ; Gaelic, *painteal*.  
 Pee, to squint ; W. *py*, inverted.  
 Peigh, to cough ; W. *psych*.  
 Powse, lumber, offal ; W. *pws*.  
 Fash, tops of turnips, waste ; Gael. *fasach*.  
 Reesak, a shriek ; W. *rhech*, a report, a loud noise.  
 Slat, to throw water about ; W. *yslotian*, to paddle, to dabble.  
 Sow, the head ; W. *siol*, the skull.  
 Tantrum, a fit of excitement ; W. *tant*, a sudden start, a gust of  
 passion.  
 Turnil, a tub for scalding pigs ; W. *turnel*.  
 Wither, large, powerful ; W. *uther*, awful, terrible.  
 Wyzles, stalks of the potato plant ; W. *gwydd*.  
 Stook, a shock of corn ; W. *ystwc*.  
 Ware, to spend money ; W. *gwarriaw*, to spend.  
 Griddle, a bakestone ; W. *greidyl*.

This list of words derived from the Celtic might be very greatly enlarged, but I have desired as far as possible to confine my examples to words peculiar to Lancashire. This is by no means so easy as might be supposed. If we compare the glossaries of the different provincial dialects, we shall find many words not in use in literary English, which are inserted in each dialectal glossary as peculiar to these alone. For instance, in any glossary of the Lancashire dialect we shall find "tyne" or "tine," to shut, and "hill," to cover, as words peculiar to the district; but on reference to the short illustration I have given of the Devonshire talk, we find the same words under the form of "tean" and "heal." The truth seems to be that, by some unexplained law, certain words are from time to time eliminated from the literary language, but continue to linger in provincial speech without being limited to any particular district. The collation of the various provincial vocabularies, so as to determine what is peculiar to each, and what portion is held in common by all or any part, would be a work of great labour, but its accomplishment would throw great light on the history of our language.

Amongst the races who combined to drive out the Celtic population, there was a tribe of Frieslanders, or Frisians, closely allied to the Angles, but differing dialectically in language. There are grounds for believing that this influence was more especially felt in Lancashire than in any other district. The pronunciation and grammatical construction, to which I shall hereafter refer, exhibit the clearest evidence of this. At present our business is with the vocabulary.

Fettle, to set in order, to repair; Old Frisian, *fitia*, to adorn; Gothic, *fetjan*.

Freawzin, gossiping; O. F. *froue*, a female, a wife.

Gloppent, amazed; O. F. *glupa*, to look sullenly.

Skrike o' day, daybreak; O. F. *skricke*, to spring up, upspringing.

Weeky, wet, moist }  
 Weet, wet } O. F. *weet*.

Wy-cauve, a young heifer ; O. F. *quie-kuw*.

"I'd gut Ratchdaw weh o keaw on o *why-kawve*."—*T. B.*

Gawster, to swagger ; O. F. *gau*, hasty, quick, precipitate.

Glendur, to stare ; O. F. *gläy*.

"Sie sehen so *gläy* aus den augen."

Wherken, to breathe convulsively, to choke ; O. F. *querke*.

"Be my troth, I'r welly *wherkent*."—*Tim Bobbin*.

Stoop, a post ; O. F. *stup*, *stupje*.

Cricket, a small stool ; O. F. *kröge*, applied to a narrow seat.

Purr, to kick ; O. F. *purren*, *porren* ; found also in the Gaelic *purr*,  
 to push or butt.

Cratchingly, feeble, weak ; O. F. *krack*, small, feeble.

Haver, oats ; Dutch, *haver*.

"A few cruddes and creme  
 And an *haver* cake."—*Piers Ploughman's Vision*, 4965.

We find, as might be expected, the closest connection between the Lancashire dialect and Anglo-Saxon obsolete forms of expression.

Addle, to earn ; A. S. *edlean*, reward, recompense.

To beet the fire, to freshen or mend it ; A. S. *betan*.

Clough, a deep valley ; A. S. *clough*.

Cockers, stockings, gaiters ; A. S. *cocer*, a case.

Crinkle, to bend under a weight ; A. S. *crincan*, quiver.

Dosome, healthful ; A. S. *duguthum*, *dugsum*, prosperously.

Fend, to seek, to provide ; A. S. *fandian*, to try, seek.

Flyte, to scold ; A. S. *flitan*, to contend, quarrel.

Galker, a tub for ale or wort ; A. S. *galcerene*, a large churn or vat.

Gank, a narrow passage ; A. S. *gang*.

Gaum, understand, comprehend ; A. S. *gyman* ; Goth. *gaumjan*.

"Ei saiwandans, saiwaina jah ni *gaumjaina*."

"That seeing ye may see and not understand."—*Mark* iv. 12. (Goth. Ver.)

"I connaw *gaum* heaw that con'd be."—*Tim Bobbin*.

Gradely, properly ; }  
 Ogreath, right. } A. S. *gerade*, in order.

"It is nocht *graitly* geten."—*Piers Ploughman's Vision*, 12660.

"Aw went *ogreath* tilly welly coom within a mile oth' teawn."—*Tim Bobbin*.

Laith, to invite ; A. S. *lathian*.

Lither, agreeable, consenting ; A. S. *liher*.

"Neaw lu' thee, Meary, I'r *liher*."—*Tim Bobbin*.

Prowt, poor, insignificant ; A. S. *preout-hwil*, an insignificant space of time.

Runge, a long tub ; A. S. *hryncgile-buc*, a wooden vessel.

To scale the fire, to stir, clear it ; A. S. *scylan*, to separate, divide.

Side, long, flowing (applied to garments) ; A. S. *sid*, ample, broad.

"Tha woeren gesette  
Wide and *side*."—*Cædmon's Paraphrase*.

Steyle, a handle, stick ; A. S. *stela*, a stalk.

"And learned men a ladel bugge  
With a long *stela*."—*Piers Ploughman's Vision*, 13514.

Woan, to dwell ; A. S. *wunian*.

"Therinne wonyeth a wight."—*Piers Ploughman's Vision*, 585.

Barm, bosom ; A. S. *bearm*, bosom.

Barmskin, leathern apron ; A. S. *bearm-cloth*, apron.

"Hal o' Nabs had his knockus (knuckles) lapt in his barmskin."  
*Tim Bobbin*.

Bruart, the rim of a hat ; A. S. *breord*, rim.

Crib, a stall ; A. S. *cryb*.

Ding, to strike ; A. S. *dencgan*, to knock or strike.

Dree, wearisome ; A. S. *dreogun*, to suffer.

Edder-cop, a spider ; A. S. *atter-coppa*, lit. poison insect.

Hoast, a cough ; A. S. *hwosta*.

Kibbo, a long stick, a wand ; A. S. *cyp*, a long stick, a measure ;  
Dan. *kiep*.

Lant, stale urine ; A. S. *hland*.

Lite, a few ; A. S. *lyt*.

"I stown a lyte wetur-podditch."—*Tim Bobbin*.

Neb, the peak of a cap ; A. S. *neb*, beak.

Simmel cake, a rich cake made at Mid-Lent ; A. S. *symbol*, a banquet.

Snidge, to hang on a person ; Scottice, *sorn* ; A. S. *snædan*, to feed ; *snæding-hus*, a house for refreshment.

Snite thy neeze, to blow the nose ; A. S. *snytan*, to clear the nose, hence to sneeze.

Snig, an eel ; A. S. *snican*, to creep.

Swill, to wash or rinse ; A. S. *swilian*, to wash.

Unbethout, remembered, reflected ; A. S. *onbetheucan*.

Sye, to sieve }  
 Syle, a sieve } A. S. *sihan*, to drain, filter.

"As weest as ewer eh could sye."—*Tim Bobbin*.

Tan, a twig ; A. S. *tan*.

Teagle, hoisting tackle ; *tiġl*, a windlass.

Teend, to kindle a fire ; A. S. *tyndan*, *tendan*.

Threap, to contradict, to argue ; *threapian*, to reprove.

Tift, to be in good order ; A. S. *tyht*, cultivation, instruction.

Fremd, strange ; A. S. *fremed*, foreign.

Mack, race, kind ; A. S. *maca*, husband ; *mace*, wife.

Mand, a basket ; A. S. *mand*.

Nang-nail, a sore at the finger-nail ; A. S. *ange*, pain ; *ang-nagl*.

Reeam, cream ; A. S. *ream*.

Wick, lively ; A. S. *cwic*.

Mouldy-warp, a mole ; A. S. *molde-weorp*, lit. earth-turner.

Bandy-hewit, a cur dog.

Beest, the first milk of a cow after calving ; A. S. *beost*.

Gird o' leawghing, a fit of laughter ; A. S. *gyrran*, to prate, to chatter.

Oboon, above ; A. S. *bufan*.

Steeġh, a ladder ; A. S. *stigu*.

Clewkin-grin, a snare for catching hares ; A. S. *cliw*, a ball of thread ;  
*grin*, a snare.

Slifters, crevices ; A. S. *slifan*, to split.

In a snift-snap, suddenly ; A. S. *sneowan*, to hasten.

"Eh lost my gate ogen snap."—*Tim Bobbin*.

Wartch, to ache, pain ; *weorc*, pain, suffering.

Awvishly, queerly (elvishly) ; A. S. *elf*, a sprite, fairy.

"Yo awnsurt him awvishly too to."—*Tim Bobbin*.

Meet, exactly, just ; A. S. *metan*, to measure.

"Tha mun come meet neaw."

Nesh, tender ; A. S. *nesc*.

Meterly, middling ; A. S. *met*, middle ; *mæte*, moderate.

"Theaw mey do meterly, frowt aw know."—*Tim Bobbin*.

Het, to be called ; A. S. *hatan* ; Old Eng. *hight*.

"What *hattestow* ? I pray thee

Hele noight thi name."—*Piers Ploughman's Vision*, 14601.

"I treatn heaw he *het*."—*Tim Bobbin*.

Sharn, dung ; A. S. *scearn*.

Sib, related to ; A. S. *sibbe*, alliance, relationship ; Goth. *siponeis*, a disciple.

"*Siponjos* theinai ni fastand."

"Thy disciples fast not."—Matt. ix. 15.

Fegger, fairer ; A. S. *fægr*, fair.

"It wur *feggur* o deool i' th' morning."—*Tim Bobbin*.

Charr, to stop or turn back ; A. S. *cerran*.

Farrantly, soundly, safely, from *fara*, to proceed ; like "happiness," from "happen."

Iccles, icicles ; from *ecan*, to increase, past part. *ycte* ; A. S. *gicel*, an icicle.

Beawt, without ; A. S. *butan*.

Uncoths, strange news ; A. S. *uncuth*, strange, unknown.

Fratch, to quarrel ; A. S. *frec* ; Old Fris. *freck*.

Scrunt, withered, worn ; A. S. *scrincan*.

Hawm-bark, a horse's collar ; from *ham*, shoulder ; and *bæran*, to bear.

"His scrunt wig feel off, on lee like a *hawmbark* on his shoulders."

*Tim Bobbin*.

Whirly-bones, the knees ; A. S. *hweorflan*, to turn, the turning bones.

Wawt, to turn over ; A. S. *waltan*.

Wrythenly, crookedly ; A. S. *writhan*, to twist.

"Mezzil-fease glendurt os *wrythenly* ot im ogen."—*Tim Bobbin*.

Quifting-pots, drinking mugs, from *quaff*.

Wistey, spacious, bare ; A. S. *weste*.

Forthink, to rue, repent ; A. S. *forthencan*.

"Boh I *forthowt* sin."

Teaw, to pull ; A. S. *teohan*, to tow, tug.

Healo, or Heanlo, bashful ; A. S. *heanlic*, humble, mean.

Thwoonish, wettish ; A. S. *thwean*, *thwogen*, to wash.

Sperr, to inquire ; A. S. *sperian*.

"And *spire* after a knyghte."—*Piers Ploughman's Vision*, 11370.

Thwool, to lose, part with ; A. S. *tholian*.

Thooal, to bear.

"There feloun *thole* sholde  
Deeth or oother jawise"—*Piers Ploughman's Vision*, 12847.

Battril, a short staff; dim. of *bat*.

Hill, to cover ; A. S. *helan*.

Thrutchings, whey pressed out in making cheese ; A. S. *thryccan*,  
to press.

Wem, stomach ; A. S. *wamb*.

Strackling, wild, mad ; A. S. *strac*.

Weant lass, a strange woman ; A. S. *wealen*, a foreign woman,  
female slave.

Bagging, afternoon meal ; to *bagge* is used by Chaucer in the sense  
of swelling out, hence metaphorically to eat.

Gar, to make ; A. S. *gearwian*, to prepare.

"And garte Will to wepe  
Water with his eighen."—*Piers Ploughman's Vision*, 2597.

Oandurth, afternoon

Yeanderro, or Yeandurth, forenoon } A. S. *undern* ; Cam. *antarth*.

These words are derived equally from the Celtic and Teutonic, with much the same meaning. They exist in all the old Teutonic tongues, sometimes meaning forenoon and sometimes afternoon. In the Gothic version, Luke xiv. 12, *undaurnimats* is the equivalent for Greek *ἀπιστον*, which was undoubtedly a morning meal. The truth appears to be that, derived from the proposition *untar*, they simply denote the period either between sunrise and noon, or that between noon and sunset.

"Th' last *oandurth* boh one my measter had lik'd o kilt meh."  
*T'im Bobbin*.

Here it certainly means afternoon. In the following, both forms are used—

"I seet eawt fro' whoam soon ith' *yoandurth* (morning) ; on ith' *oandurth*  
(afternoon) I'r aw up on deawn i' this neighbourhood."

*T'im Bobbin*.

This list of Anglo-Saxon obsolete forms might be carried to a great extent, if those prevalent also in other districts were included, but the above may suffice.

We have next to refer to the Danish and Scandinavian element in our county dialect. From the eighth to the tenth century the Danes made continual incursions round the coasts, and, penetrating inland, effected many permanent settlements. In Lancashire their track has left an indelible record in the names of places, by which it may be traced with much accuracy. In the neighbourhood of Liverpool Danish names abound; Crosby, Formby, Roby, Ince, Thingwell, Speke, Lunt, Breck, Warbrick, Scarisbrick, Ormskirk, testify to the mixture of Scandinavian blood. Three out of the five hundreds into which the county is divided — West Derby, Amounderness, and Leyland — have names of Danish origin. We may therefore naturally expect the infusion of a large Danish element into our county dialect. The following list appears nearly, though not altogether, peculiar to South Lancashire.

Helder, rather; Icelandic, *heldr*.

As-helt, easily; Danish, *heller*; Old Frisian, *helden*, to incline, tend.

“Eh thowt eh cou’d *ashelt* sell hur i’ this tother pleck,”—*Tim Bobbin*.

Bigg, to build  
Biggen, a building } D. *bygge*.

This word was introduced into late Saxon, the original term for building being *timbrian*.

Ligg, to lie; D. *lig*.

Clem, to starve; D. *clemme*, to squeeze, to pinch.

Keck, lively, pert, insolent; D. *kick*, hardy, pert.

Dateless, foolish, silly; Old Norse, *dadlaus*.

Reawp, hoarseness; D. *hrop*, clamour.

Brangle, to wrangle; D. *branga*.

Bunt, to pack up; D. *bundter*.

Clap-cake, thin rolled cakes ; D. *klappebrod*.

Clutch, a brood of chickens ; D. *klekke*, to hatch.

Cronk, to croak, to prate ; D. *krunk*.

Dab, a blow ; D. *dabe*, a pavier's rammer.

Doage, wet, moist } D. *dugge*, to bedew ; Sw. *dagg*, dew ;

Deg, to moisten, sprinkle } O. F. *dauwgje*,

Elt, to stir dough before baking ; D. *elta*, to strike, agitate.

A gainer way, a nearer way ; D. *gienvie*, a shorter way.

Gawby, a clownish simpleton ; D. *gabb*, to deride.

The kick, the fashion ; D. *skik*, custom, fashion.

Laith, a barn ; D. *lade*.

Lomm, to beat ; O. N. *limia*, to strike.

Late, to seek ; *leyta*.

Lattent, hindered ; D. *lede*.

Lither, idle, lazy ; D. *lad*, idle ; *liderlig*, debauched, useless.

Lopper, to simmer, boil slowly ; O. N. *lopi*.

Lurdin, an idle fellow ; D. *lur*, idleness.

"And ye *hurdaynes*, han y-lost

For lif shall have the maistrye."—*Piers Ploughman's Vision*, 12278.

Neyve, the fist ; D. *næve*.

Skellut, crooked, awry ; O. N. *skæla*.

Skime, to turn the nose up at a person, to look scornfully ; D. *skiemte*, to mock.

Snye, much the same meaning as the last ; D. *snœ*, to turn, to twist.

Whoave, to cover over ; D. *hoælle*, to arch over.

Flake, a hurdle ; D. *flette*, to twist.

Spirr, a prop ; D. *sparre*.

Kegle, keggy, easy to overturn ; D. *kegle*, a ninepin.

Beawn, prepared, setting out ; O. N. *buinn*, ready,

Coaken, a blow from a horse's shoe ; D. *kok*, a hammer, anything which strikes.

"A knock oth' sow wi' a tit *coaken* os he coom."—*Tim Bobbin*.

Gloppent, struck with fright ; D. *glop*, fatuous, foolish.

Gat, to commence, set to work ; O. N. *gaa*, to set the mind to a thing.

"They *gatud* o foin cawt."—*Rachde Felley*, 62.

Lennock, soft, pliable ; D. *len*, soft ; *linlikæ*, gently.

"E ax'd me what aw meyn't wi' sayin *lennock*. Aw, said, 'Whau, yo met nevur o bin to th' schoo', mon, fur ony body wheer aw coom frow knows as *lennock* meyns *thamp*, un ow't what's raythur *lennock* ur *thamp* mun be sauft.'"—*Rachde Felley*, 69.

It could scarcely be expected that many words peculiar to Lancashire should be derived from the Norman-French ; there are, however, a few, which may have lingered here after being disused in the rest of the country.

Boyrn, to rinse or wash ; Norman-French, *buer*, to wash.

"I 'r primely *boyrint*, on or weet os ewer eh cou'd sye."—*Tim Bobbin*.

Cale, time, turn ; N. F. *cule*, time, season.

Cank, to talk, to chatter ; N. F. *cancan*, loud talking, noise.

Larjus, a gift ; N. F. *largesse*.

Manchet, white bread ; N. F. *manchet*.

Maslin, mixed flour ; N. F. *mesler*, to mix.

Nifle, a trifle, a titbit ; N. F. *nifle*.

Motty, a word, speech ; N. F. *mot*.

Sawgh, a willow branch ; N. F. *saule*.

Peyl, to knock, to strike ; N. F. *pelle*, to drive or push.

Gab, to chatter, mock ; N. F. *gaber*.

"But if thou wolt *gabbe*  
 Thou hast hanged on myn half  
 Ellevene tymes."—*Piers Ploughman's Vision*, 1718.

"I am no labbe,

No, though I say it, I n' am not lefe to *gabbe*."

*Chaucer, Miller's Tale.*

Posse, to knock or push ; N. F. *poulser*.

"And pleide with hem perillousli,  
 And *possed* aboute."—*Piers Ploughman's Vision*, 801.

"The sea by night as any torches brende  
 For wood, and *posseth* him up and down."

*Chaucer, Legend of Good Women.* 2409.

Thampf, soft. This is probably from a Frisian source. *Dampf* originally meant the breath, vapour issuing from the mouth. *Thampf* means a moist softness.

We have now to consider the second characteristic of the Lancashire dialect—the peculiar grammatical forms. I have

here to repeat, that these are not mere corruptions, but differences as old as the language itself.

One of these peculiarities consists in the retention of the old Anglo-Saxon plural termination in *n* or *en*. In the nouns this exists to a small extent only, in such terminations as *shoon*, *hosen*, &c. In the verbs it prevails to a much greater degree, so as to form the ordinary phraseology. "They'rn aw croppen into th' leath;" they were (had) all crept into the barn. There is a singularity in the use of this termination which points to a very early dialectical difference. The Anglo-Saxon plural ending in *en* or *on* applies only to the past tenses—

We lufodon,	We loved.
Ge lufodon,	Ye loved.
Hi lufodon,	They loved.

In the present tense the termination is in *ath*—

We lufiath,	We love.
Hi lufiath,	They love, &c.

But in the Lancashire speech this termination is employed in both tenses. Present—

What *han* yo i' yore hont?

Aw've rayther moore whoite i' me een nur yð *thinken* on, mon!

Yo're no bettur nur yo *shudden* be.

In the past tense—

Aw've *getten* Billy o' Jim's fur to roite this lettur.

Aw geet two, on they *mejd'n* up meh keawnt.

Heaw *wenten* ye on?

This plural verbal termination is employed in both the past and present tenses by our old writers.

"Men *drinken* and the travers draw anon."

"Alle hir *loven* that *loken* on hir face."

"Tho' *speken* they of Canacee's ring,  
And *saiden* all."—Chaucer,

Piers Ploughman uses both terminations indiscriminately—

“Thanne *telleth* they of the Trinité,  
And *bryngen* forth a reason.”

Wickliffe employs the termination in *en* or *an* almost always.

“The whiche *wenten* oute that they *shudden* be baptiside.”

“We *hane* a fadir Abraham.”

This plural termination of the present tense in *en* is thus not peculiar to Lancashire, but has lingered perhaps longer amongst us than in other parts of the country. It is not found, so far as I am aware, in the southern dialects of England.

We cannot look for its source either in the Danish, Old Norse, or Frisian, each of which contributed to the formation of the northern dialects. Its introduction into our own tongue is singular, as it is a High German peculiarity, and it is not usually thought that we have drawn on this sister tongue for any of the staple of our language. We find, however, in the Gothic probably the true solution. The Gothic, though leaning for the most part to the Low German, has much in common with the High German variety. In Gothic the third person plural of the present tense terminates in *and*, and in the past tense in *un*.

*Rinnand*, they run.

*Runnun*, they ran.

Phonetic corruption might very easily confound the two. That the Goths took part in the Teutonic invasion of England there can be no doubt, and it is probably from this source, through the Anglian branch, that this peculiarity has sprung.

Another grammatical test of the South Lancashire speech is the great prevalence of strong preterites. This form of the past tense, which was the original method of all the Teutonic tongues, has stood its ground against the innovations of the so-called “regular” declensions, *e.g.*—

Beat.	Bet.
Bite,	Bote.
Choose,	Chez.
Creep,	Crope.
Dread,	Drad.
Fetch,	Fot, fotcht.
Go,	Gan (for went).
Grin,	Gran.
Heed,	Hed.
Fell,	Feel.
Climb,	Clam.
Flit,	Flote.
Leap,	Lope.
Need,	Ned.
Sweat,	Swat.
Treat,	Trat.
Weed,	Wed.
Heave,	Hove.
Laugh,	Lough.
Light,	Leet.

*Cum multis aliis.*

The past participle is usually formed by adding *n* or *en* to these strong preterites—

“Aw ’ve *lopen* th’ dyke.” “Aw ’ve *leet’n* on meh feet.”

In the personal pronouns our dialect has preserved several archaic forms of its original Anglo-Saxon. The English feminine personal pronoun *she* is represented in Anglo-Saxon by *heo*.

“Tha wæs *heo* sona up-arcæred, and *heo* God wuldrode.”

*Luke xiii. 18.*

“And immediately she was made straight, and glorified God.”

The same form is still employed in Lancashire—

“*Hoo* towd meh *hoo* ’re gooin whoam.”

*Them* is in Anglo-Saxon *heom*, which is perpetuated in the form of *um*—

“Sum on *um* wor o for it, and sum on *um* ogen it.”

The affirmative particle *yes* is not found in our county dialect; the older form *eigh* or *yih* takes its place. This is found in every Teutonic dialect under the form of *ja* (pronounced *ya*), Old Norse *ey*, English *yea*. *Yes* is peculiar to modern English, and sounds offensive to a Lancashire clown.

“Hoo cou’d naw opp’n hur meawth t’ sey *eigh* or now; boh simpurt on sed *iss*; th’ dickons *iss* hur on him too.—*Tim Bobbin*.

Another grammatical peculiarity is the use of *in* for *than* in comparison, “moor *in* bargain,” more than the bargain.

“There’s bin moor t’ do *in* a gonnor t’ muck, I’ll uphowd *tey*.”

This *in* is of Danish or rather Old Norse derivation, from the comparative adverb *enn*—

“Betri er dauthi *enn* sjukt lif.”

“Death is better than a sick life.”

The common Lancashire phrase “that theer” is of Norse extraction, Swed. *det der*.

The phrases “*a* that way,” “*a* this way,” or more commonly “*a* that ’ns,” “*a* this ’ns,” are also Scandinavian. Old Norse *a*, in or upon.

*I’* for *in* is from the same source—

“Aw ’d do ’t *i’* no toime.”

*At-after*, for afterwards, is the Danish *efter-at*.

*Mun* for must, and *mud* for might, are also of northern origin.

*Ot*, as a relative pronoun and conjunction, is also the Norse *at*, Danish *ad*—

“Theaw seys *ot* tis tit’s thy tit, doesto?”

“Yo felly *ot* owns this tit.”

The indefinite expression *sooawhasa*, or so-who-so, for "whosoever," has come down in our county dialect from a remote period, like a fragment of granite imbedded in a recent formation. It is the Anglo-Saxon *swa-hwa-swa*.

We now come to the peculiar contractions used in the Lancashire dialect, which contribute, along with its pronunciation, to its unintelligibility to strangers.

Professor Max Müller, in his recently published second series of Lectures on Language, makes the following remarks :—

"There is one class of phonetic changes : . . . which are neither more nor less than the result of *laziness*. Every letter requires more or less of muscular exertion. There is a manly, sharp, and definite articulation, and there is an effeminate, vague, and indistinct utterance. The one requires a will, the other is a mere *laissez-aller*. The principal cause of phonetic degeneracy in language is when people shrink from the effort of articulating each consonant and vowel ; when they attempt to economise their breath and their muscular energy. . . . Nearly all the changes that have taken place in the transition from Anglo-Saxon to modern English belong to this class. Thus—

Hafoc	becomes	Hawk.
Fægér	„	Fair.
Secgan	„	Say.
Weorold	„	World.
Nawiht	„	Naught.
Hlaford	„	Lord.
Nose-thyrl	„	Nostril.
Heafod	„	Head.
Wifman	„	Woman.*

The contractions in the Lancashire dialect present striking illustrations of these remarks. Although our countryfolk speak sufficiently *ore rotundo*, yet there is great rapidity and slovenliness in their articulation, and the consequence is a

\* Lectures on Language, Second Series, p. 176.

sort of, "shorthand" of speech, if so it may be called, which is exceedingly puzzling to a stranger, *e.g.*—

"Innin' geaw wimmey, beawt yeon tey th' brass."

If you will go with me, without (unless) you will take the brass (money).

These contractions are of two kinds, those of single words, and compound ones, in which two or more words are run together. Of the former, the following are a few specimens—

Boh	for But.
Wur	„ Worse.
Tey	„ Thee.
Suse	„ Six.
Seign	„ Seven.
Teon	„ Taken.
Mey	„ Make.
Gan	„ Given.
Le	„ Let (le meh see).
Hontle	„ Handful.
Warty	„ Workday.
Rotchet	„ Richard.
Now	„ Not.
Stown	„ Stolen.

The most characteristic are the compound contractions—

Welly	for Well nigh.
Luthee	„ Look thee.
Hannev	„ Have you.
Munney	„ Must I.
Gut'	„ Go to.

I 'd gut' Ratchdaw; I had to go to Rochdale.

Cudney, for could you.

"What cudney do wi 't?"

Yoadn, for you would.

"Yoadn be quite broken."

Heigh 't, for have it.

"As luck would heigh 't."

Didney, for did you.

"Heaw *didney* do with 'r weest cloas? warney now welly pariaht?"

Beleemy, believe me.

Yoarn, for you are, for you were.

Hoor, she was.

"*Hoor* so meety foine."

Preo, pray you.

"*Preo* na, tell meh."

Inney, than you.

"More brass *inney* hadd'n."

Ot idd'n, that you had.

"Yoarn in o good kele too-to, ot idd'n money i' yer pocket."

You were in a good case, very, that you had money in your pocket.

In the following expression, "As 't wur t' lete t' gooa" (as it was too late to go), the same contraction is employed for *it*, *too*, and *to*.

"Innin" (if you will); innin geaw wimmy" (if you will go with me).

Hearsto, hearest thou.

Seesto, seest thou.

This form of expression is found in our old writers—

"Sone, slepestow?"

Sestow this people?—*Piers Ploughman's Vision*, 468.

Obut, only (all but).

Nobbut, except (not but).

"*Nobut* only to pristis al one."—*Wickliffe, Luke vi.*

Mettent, might not.

Ifle, if thou wilt.

Wither, with your.

Frowt, for ought.

Tone, the one.

"Tin tone ee" (shut one eye).

O'eranent, over against.

Not unfrequently the contractions combine a whole phrase—  
I wudidn, I wish you would; in Lancashire phraseology, “I would-yo-diddn.”

“I *wudidn* tell him I’d fene speyk to him.”—*Tim Bobbin*.

Mitchgodeeto, much good may it do thee.

“Whau *mitchgodeeto* wi’ um, sed hoo; and yo mey come on begin,  
for they need’n no keeling.”—*Tim Bobbin*.

*Yepsintle* is a word used for two handsfull, probably a contraction of heaps-into-it, *heap* being usually pronounced *yep*.

Provincial dialects are checked and controlled by constant reference to the standard of educated speech. Were it not for this counteracting influence, there is no reason why contractions of this kind should not permanently take their place in a language. They are quite as legitimate as the conversion of the Sanskrit *rajitasmī* into the Latin *regam*; or of the Latin *cantare haberemus* into the Italian *cantaremmo*. This is in fact the process by which one language is, so to speak, gradually converted into another. The Romance languages (French, Italian, &c.) swarm with similar instances.

Perhaps enough has been said on the subject of contractions. I will now proceed to the fourth and last characteristic which I shall notice—the peculiar pronunciation. The other peculiarities require some investigation, but this is patent and obvious to all, and is that by which strangers principally identify the Lancashire speech. It is usual to consider it coarse, vulgar, and debased. It is true it would sound rather out of place in an elegant drawing-room; but even there, broad Scotch would find ready admission, whilst broad Lancashire would produce only aversion and disgust. Apart from the question of nationality, the main reason for this probably is, that Literature has thrown her friendly ægis over the one, whilst the other has been banished to the cottage and the factory. It is the province of genius alone to gild with radiance the most unpromising and even repulsive

materials; and until some Lancashire Burns shall arise to clothe his burning thoughts with our county vernacular, we must even be content to have our local dialect voted rough, coarse, and unpolished.

I have already made reference to the Frisian element in the invading races. It is principally from this source that the rough pronunciation of Lancashire is derived. Such words as—

Lond	for Land,
Hond	„ Hand,
Stond	„ Stand,
Mon	„ Man,
Donse	„ Dance,

are legitimate Frisian.

This pronunciation prevails in several of our old writers—

“ Fell Pandarus on knees, and up his eyen  
To heaven threw, and held his *hondes* hie.”

*Chaucer, Troilus and Cresseide.*

“ To gyve *londe* from hire heires  
To religiouse that han no routhe.”

*Piers Ploughman's Vision, 6280.*

“ Eche cytee or hous departide agenes itself, schal not *stonde*.”

*Wickliffe, Matt. xii. 25.*

From the earliest period the pronunciation varied, and was written *o* or *a*, according as the writers belonged to the north or south. Thus in Layamon's Brut we read in one MS. (Calig. a. 9)—

“ Nu ich *æm* a wrecche *mon*;”

and in another (Otho, c. 18)—

“ Nou ich *ham* a wrecche *man*.”

The open *a*, in Lancashire, is usually pronounced *o*—

On	for And,
Os	„ As,
Choance	„ Chance,
Gronny	„ Granny.

On the contrary, in some words *a* is substituted for *o*, as—

Halliday for Holiday,  
Fartin „ Fortune. 2/

The modified sound of *a* in call is also represented by *o*—

Co' for Call,  
Wo' or Wough „ Wall,

There is a tendency to retain the diphthongal pronunciation in words where modern English uses only a single vowel, as—

Deeod for Dead,  
Veeol „ Veal,  
Meeons „ Means,

and in some cases to create a diphthong where none existed, as—

Meary for Mary.

Short *e* is frequently changed into long *e*—

Eend for End,  
Theere „ There,  
Geet „ Get,  
Seet „ Set,  
Weel „ Well,  
Leeond „ Lend;

sometimes into *o*, as—

Fot, fotch, for Fetch;

*ai* sometimes becomes *u*—

Hure for Hair;

*ei* is changed into *o*—

Oather for Either.  
Noather „ Neither;

*ea* into *oi* or *oy*—

Oytch for Each.

Short *i* is frequently changed into *oy* —

Roytch for Rich,

Doytch ,, Ditch.

Long *i* is changed sometimes into *oy* —

Foynd for Find,

Toime ,, Time ;

sometimes into long *e* —

Leet for Light,

Neet ,, Night ;

sometimes into *oo* —

Moot for Might.

Short *o* is sometimes changed into *u* —

Lunger for Longer,

Thurn ,, Thorn ;

sometimes into *oo* —

Coom for Come,

Sooary ,, Sorry,

Goo ,, Go,

Booan ,, Bone.

Long *o* becomes sometimes *ow* —

Now for No ;

sometimes *oy* —

Hoyle for Hole,

Cloyse ,, Close,

Loyse ,, Loose ;

*oo* also changes into *oy* —

Soyner for Sooner ;

*o* sometimes changes into *e*, as —

Nese for Nose,

Keme ,, Comb.

The diphthong *ou*, in such words as *house*, *thou*, is expressed by a very peculiar sound, which may almost be called the South Lancashire shibboleth. It is usually written *heawse*, *eawt*, but the pronunciation differs in different districts —

Theaw for Thou,  
 Heawse ,, House,  
 Neaw ,, Now,  
 Eawt ,, Out,  
 Eawer ,, Our,  
 Heaw ,, How,  
 Deawn ,, Down,  
 Eawnce ,, Ounce,  
 Peawnd ,, Pound;

*y* is changed into *aw* —

Whaw for why,  
 Maw ,, My;

*aw* is sometimes changed into *aigh*, with a guttural breathing—  
 Saigh for Saw.

The aspirated *h* is sometimes intensified, as in *whoam* for *home*; sometimes changed into *y* —

Yed for Head,  
 Yep ,, Heap,  
 Yarb ,, Herb.

Sometimes *y* is prefixed to vowels without the aspirate, as —

Yearth for Earth,  
 Yeasy ,, Easy.

*n* is sometimes prefixed to words beginning with a vowel —

Noant for Aunt,  
 Nown ,, Own,  
 Neen ,, Eyen (eyes).

*k* is sometimes softened into the palatal *ch* —

Wartch for Work,  
 Seech ,, Seek.

Sometimes into *sh*—

Ash for Ask,

*k* is sometimes substituted for *g* at the end of words—

Sturrink for Stirring,

Beggink ,, Begging,

Puddink ,, Pudding.

The soft *c* is sometimes changed into *k*, as *pleck*, for *place*—

“ I cou’d like meh *pleck* primely boh for that.”—*Tim Bobbin*.

*t* is substituted for *th* in such words as—

Teh for Thee,

Tees., These,

Tat ,, That.

Tis ,, This.

*w* is sometimes substituted for *v*—

Newer for Never.

The hard *s* is softened into *z* in such words as—

Elze for Else,

Caze ,, Case.

so also *f* is changed into *v*—

Live, or Loive, for Life.

By a species of metathesis the position of the *r*, in some words, has been changed in modern English, where the Lancashire dialect adheres to the ancient Saxon—

Brast for Burst,

Brent ,, Burnt,

Brid ,, Bird,

Gerse ,, Grass,

Girn ,, Grin.

The middle consonant is frequently doubled in such words as—

Papper for Paper,

Babby ,, Baby.

D

To describe in writing all the minute differences of the Lancashire pronunciation would be impossible. Generally speaking it may be described as broader, rougher, and more open than that of the south, and at the same time rapid and slovenly, falling, as we have seen, into contractions, and half utterances.

Provincial dialects are not perhaps in themselves desirable, but they are inevitable, and will always more or less exist. I have already shown that within the last century the Lancashire dialect has greatly changed, and, in future, no doubt, it will change still more. This, however, is the character of all language, whether literary or dialectic. Whilst it has a living practical existence it must be continually undergoing elimination and change in one direction, and regeneration and reproduction in another. It is only when dead that it can be compressed within that nicety of rule and system, and become the subject of that exhaustive analysis and criticism which has been applied to the Greek, Latin, and Sanskrit. We know what our language is now, but what it will be a few centuries hence he would be a presumptuous man who would venture to prophesy. What it *might* become; under certain circumstances, we have some indication, in the dialectic jargon which has grown up on the other side of the Atlantic within about two centuries, and which is so amusingly developed in the pages of Sam Slick. The following specimen may suffice :—

Ez to the answerin' o' questions,  
 I 'm an off ox at bein' druv,  
 Though I aint one that ary test shuns  
 'Il give our folks a helpin' shove.  
 Kind o' permiscoous I go it;  
 Fer the holl country an' the ground,  
 I take, ez nigh ez I can show it,  
 Is pooty gen'ally all round.

*J. R. Lowell, Biglow Papers.*

Language, as the exponent of human thought, is created, moulded, modified, and expanded, according to the constantly varying demands for its expression. In studying the history of our language, dialectic variations are material aids to philological inquiry, and throw great light on our early literature; and in this view few of the dialects of Great Britain have greater claims upon our attention than that of South Lancashire.

I will conclude this paper by an extract or two in the Lancashire dialect from the pen of Mr. Edwin Waugh, of Manchester,\* a gentleman whose thorough knowledge of the dialect, and the use he has made of it in his *Sketches and Poems*, are deserving of very warm commendation.

#### JAMIE'S FROLIC.

##### I.

One neet aw crope whoam, when my weighvin' were o'er,  
 To brush mo, an' wesh mo, an' fettle my yure;  
 Then, slingin' abeawt, wi' my heart i' my shoon,  
 Kept tryin' my hond at a bit ov a tune,  
     As Mally sit rockin',  
     An' darnin' a stockin',  
 An' tentin' her bakin' i' th o'on.

##### II.

Th' chylt were asleep, an' my clooas were reet;  
 Th' baggin' were ready, an' o' lookin' sweet;  
 But, aw 're mazy, an' nattle, an' fasten't to tell  
 What the dule it could be that 're ailin' mysel',—  
     An' it made me so naught,  
     That, o' someheaw, aw thought  
 "Aw could just like a snap at cawr Mall."

\* *Sketches of Lancashire Life*, 1855. *Poems and Lancashire Songs*, 1859.

## III.

Poor lass ! hoo were kinder becose aw were quare ;  
 “ Jamie, come saddle thisel’ in a cheer ;  
 Thae ’s looked very yonderly mony a day ;  
 It ’s grievin’ to see heaw thae ’rt wearin’ away,—  
     An’ trailin’ abeawt,  
     Like a hen at ’s i’ th meawt ;—  
 Do, pritho, poo up to thi tay !

## IV.

“ Thae wants some new flannels,—thae ’s gotten a cowl,—  
 Thae ’rt noather so ugly, my lad, nor so owd,—  
 But, thae ’rt makin’ thisel’ into nought but a slave,  
 W’ weighvin’ an’ thinkin’, an’ tryin’ to save ;—  
     Get summat to heyt,  
     Or thae ’ll go eawt o’ seet,—  
 For thae ’rt wortchin’ thisel’ into th’ grave.”

## V.

Thinks I, “ Th’ lass ’s reet, an’ aw houd with her wit ;”  
 So, aw said,—for aw wanted to cheer her a bit,—  
 “ Owd crayter, aw ’ve noan made my mind up to dee,—  
 A frolick ’ll jnst be the physic for me !  
     Aw ’ll se some fresh places,  
     An’ look at fresh faces,  
 An’ go have a bit ov a spree !”

## VI.

Then, bumpin’ an’ splashin’ her kettle went deawn ;  
 “ I’ th name o’ good Katty, Jem, wheer arto beawn ?  
 An’ what sort o’ faces dost want,—con to tell ?  
 Aw deawt thae ’rt for makin’ a foo o’ thisel’,—  
     The dule may tent th’ o’on ;  
     Iv aw go witheawt shoon,  
 Aw ’ll see where thae gwos to mysel’ !”

## VII.

Thinks I, "Th' fat 's i'th fire,—aw mun make it no wur,—  
 For there 's plenty o' feightin' to do eawt o' th dur,—  
 So, aw 'll talk very prattily to her, as heaw,  
 Or else hoo 'll have hond o' my toppin in neaw ;"

An', bith leet in her e'en,  
 It were fair to be sin  
 That hoo 're ready to rive me i' teaw.

## VIII.

Iv truth mun be towld, aw began to be fain  
 To study a bit o' my cwortin' again ;  
 So aw said to her, " Mally, this world 's rough enoo !  
 To fo' eawt wi' thoose one likes best winnut do,—

It 's a very sore smart,  
 An' it sticks long i' th heart,"—  
 An', egad, aw said nought boh what 's true !

## IX.

Lord, heaw a mon talks when his heart 's in his tung !  
 Aw roos't her, poor lass, an' shewed hoo wur wrung.  
 Till hoo took mo bath hond, with a tear in her e'e,  
 An' said, " Jamie, there 's nobry as tender as thee !

Forgi mo, lad, do ;...  
 For aw 'm nobbut a foo,—  
 An' bide wi' mo, neaw, till aw dee !"

## X.

So, we 'n bide one another, whatever may come ;  
 For there 's no peace i' th world iv there 's no peace awhoam ;  
 An' neaw, when a random word gies her some pain,  
 Or makes her a little bit crossish i' th grain,

Sunshine comes back,  
 As soon as aw crack  
 O' beginning my cwortin' again.

*Poems and Lancashire Songs, p. 79.*

## HEAW OWD NEDDY GEET HIS CHIMBLEY SWEPT CHEP.

One mornin', after Owd Neddy an' Bodle had been fuddlin' o' th' o'erneet, thi'dd'n just gotten a yure o' th' owd dog into 'em, an' they sit afore th' fire i' Owd Neddy kitchen, as quiet, to look at, as two pot dolls; bnt they didn't feel so, nother; for thi'dd'n some ov a yed-waach apiece, i' th' treawth wur known. When thi'dd'n turn't things o'er a bit, Bodle began o' lookin' very yearn'stfully at th' fire-hole o' at once't, and he said, "By th' mass, Owd Ned, aw 've a good mind to go reet up th' chimbley." Well, yo known, Neddy likes a spree as well as ony man livin', an' he doesn't care so mich what mak' o' one it is, nothur; so as soon as he yerd that he jumped up an' said, "Damn it, Bodle, go up—up wi' tho!" Bodle stood still a minute, lookin' at th' chimbley, an' as he double't his laps up, he said, "Well, neaw; should aw rayley go up, thinks ta, owd crayter?" "Go?—ah, what elze?" said Owd Ned—"Up wi' tho; soot 's good for th' bally-waach, mon; an' aw 'll gi' tho a quart ov ale when tho comes deawn again!" "Will ta, for sure?" said Bodle, prickin' his ears. "Am aw lyin' thinks ta?" onswer't Owd Neddy. "Whau, then, aw 'm off, by Gos, iv it 're as long as a steeple;" an' he made no moor bawks at th' job, but set th' tone foot onto th' top-bar, an' up he went into th' smudge hole. Just as he wur crommin' hissels in at th' bothom o' th' chimbley, th' owd woman coom in to see what they hadd'n agate; an' as soon as Bodle yerd her, he code eawt, "Houd hur back a bit, whol aw get oawt o' th' seet, or elze hoo 'll poo me deawn again." Hoo stare't a bit afore hoo could may it eawt what it wur a're creepin' up th' chimbley-hole, an' hoo said, "What mak' o' lumber han yo afoot neaw? for yo 're a rook o' th' big'st nowmuns at ever trode ov a floor. Yo 'n some mak' o' divulment agate i' the chimbley, aw declare." As soon as hoo fund what it wur, hoo sheawted, "Eh, thea ghreyt gawmless foo!

Wheer to for up theer? Thea 'll be smoor't, mon!" An' hoo would ha' darted forrüd, an' getten hound on him; but Owd Ned kept stonnin afore hur, an' sayin', "Let him alone, mon; it's nobbut a bit ov a spree." Then he looked o'er his shoulder at Bodle, an' said, "Get tee forrüd, wilsto nowmun: thae met ha' bin deawn again by neaw;" an' as soon as he see'd at Bodle wur gettin meeterly weel up th' hole, he leet hur go; but hoo wur to lat by a dhyel. An' o' at hoo could do, wur to fot him a seawse or two o' th' legs wi' th' poker. But he wur for up, an' naut else. He did just stop abeawt hawe a minute,—when he feld hur hit his legs,—to co' eawt, "Hoo's that at 's hittin mo?" "Whau," said hoo, "it's me, thae ghreyt leather-yed; an' come deawn wi' tho! Whatever arto' doin' i' th' chimbley?" "Aw'm goin' up for some ale." "Ale! There's no ale up theer, thae ghreyt brawsen foo! Eh, aw wish yor Mally wur here!" "Aw wish hoo wur here, istid o' me," said Bodle. "Côme deawn witho this minute, thae ghreyt drunken hal!" "Nut yet," said Bodle,— "but aw'll not be lung, nothur, yo may depend; for it's noan a nice place,—this isn't. Eh! there is some ov a smudge! "An' it gwos wur as aw go fur;—a—tscho—o! By Guy, aw con see noan,—nor talk, nothur;—so ger off, an' let mo get it o'er afore aw'm chauk't;" and then th' owd lad crope forrüd, as hard as he could, for he 're thinkin' abeawt th' quart ov ale. Well, Owd Neddy néarly skrike't wi' laughin', as he watched Bodle draw his legs up eawt o' th' seet; an' he seet agate o' hommerin' th' chimbley wo' wi' his hont, an' sheawtin' up, "Go on, Bodle, owd lad! Go on, owd mon! Thi'rt a reet un! i' tho lhoyzus thea 'st have a quart o' th' best ale i' this hole, i' tho lives till tho comes deawn again, as hea 'tis, owd brid! an' i' tho dees through it, aw'll be fourpence or fi'pence toawrd thi berrin." And then, he went sheawting up an' deawn, "Hey! Dun yo yer, lads; come here! Owd Bodle 's gwon chleyn up th' chimbley! Aw never sprad my e'en uppo th' marrow trick to this i' my life." Well, yo may think, Sam, th' whole heawse wur up i' no time; an' some rare spwort they ha'dd'n; whol Owd Neddy kept goin' to th' eawtside, to see if Bodle had getting his yed eawt at th' top; an'

then runnin' in again, and bawling up th' flue, "Bodle, owd lad, heaw arto gettin' on? Go throo wi 't, owd cock!" But, whol he 're starin' and sheawtin' up th' chimbley, Bodle lost his hound, somewheer toawrd th' top, an' he coom shutterin' deawn again, an' o' the soot i' the chimbley wi' him; an' he leet wi' his hinder end thump o' th' top-bar, an' then rollt deawn uppo th' har'stone. An' a greadly blush-boggart he looked, yo may think. Th' owd lad seem't as if he hardly knowed wheer he wur; so he lee theer a bit, amoon a ghreyt cloud o' soot, an' Owd Neddy stood o'er him, laughin', an' wipein' his e'en, an' co'in' eawt, "Tay thy wynt a bit, Bodle; thi'rt safe londed, iv it be hard leetin'! Thir't a reet un, bi' th' mon art ta, too. Tay thy wynt, owd brid! Thea 'st have a quart ov ale, as hea 'tis, owd mon, as soon as ever aw con see my gate to th' bar eawt o' this smudge at thea 's brought wi' tho! Aw never had my chimbley swept as chep i' my life, never!"

## FOURTH ORDINARY MEETING.

ROYAL INSTITUTION, 28th November, 1864.

J. A. PICTON, Esq., PRESIDENT, in the Chair.

Messrs. Walter Weld, Fred. J. Jeffery, William Humphreys, and the Rev. Edward Scott, B.A., were balloted for and elected ordinary members of the Society.

A Paper was read, entitled :—

## THE ENGINEER'S LIBRARY.

By MR. JOHN M'FARLANE GRAY.

## FIFTH ORDINARY MEETING.

ROYAL INSTITUTION, 12th December, 1864.

J. A. PICTON, Esq., PRESIDENT, in the Chair.

Mr. HIGGINSON described a fine lunar rainbow, which he had observed at about half-past three a.m. on the morning of the 8th instant.

Mr. T. J. MOORE read some notes by Captain J. H. Mortimer, ship "America," Associate of the Society, on the *Physalia*, or Portuguese man-of-war, illustrating in a remarkable manner the stinging properties of this creature. On one occasion, having to soak a portion of a single tentacle of

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a large specimen, taken in the North Atlantic, in order to unwind it from a card which had been bent double by the strong contractile power of the tentacle in drying, the earthenware basin in which it had been soaked was simply emptied of the water without being further cleaned. Subsequently both the steward and the cabin boy washed in the same basin, and suffered extreme pain in the arms, face, and neck in consequence. In the case of the steward the arms were very much inflamed, as from a new scald before the blister has formed; he was also very red and swollen under the armpits and on the neck. Relief was obtained by the application of olive oil. The cabin boy went to bed with his face covered with wet towels, so great was his distress, but which he did not at the time make known to the captain.

Some notes by the same gentleman were also read relative to a specimen of the frog fish (*Antennarius* sp.), of remarkably large size, taken from the Gulf weed in lat. 59° 50' N., long. 59° W. This was kept alive twelve days. Its movements were graceful, its colours brilliant and variegated, the skin being of a dark yellow, tinged with green and varied with black spots, closely resembling the *Fucus natans*, or Sargasso weed, with its darker berries, from which it was taken, and among which specimens may easily be overlooked. The whole body was very flexible; and the creature grasped the branches of the weed with its pectoral fins, which might almost be termed arms from their jointed and prehensile character, being furnished with five-finger or claw-like prolongations.

The specimens above referred to were exhibited from the Derby Museum, as was also a specimen of the flying fish (*Exocoetus*), collected by Captain George Fletcher, to which was attached a Lernean parasite, apparently *Penella sagittata*.

Mr. CHADBURN exhibited an instrument to show enlarged pictures upon a screen from "opaque" objects, similar to

those shown by the magic lantern from "transparent" ones. The idea is not novel, but the arrangement is entirely so, and has been registered by Mr. Chadburn. Coloured prints, cartes de visite, medallions, &c., are presented by it with all their colour, detail, &c. Its construction is simple. The lime light is used, the cylinder being placed in the centre of the lantern, the gases blowing upon it from behind; the light is collected by a large reflector, which throws it upon a condensing lens, by which it is concentrated upon the object. The illumined object is then received by a combination of achromatic objectives, and enlarged upon the screen. The effects were very excellent and much admired.

The following Paper was then read :—

## ON THE CONDITION OF THE FEUDAL PEASANTRY IN ENGLAND.

By JAMES BIRCHALL,

Late Government Lecturer in History, Training College, York.

A knowledge of the principles and practices which prevailed during the Feudal age of English history must ever be of the highest interest and importance to us, for the simple reason that they lie at the foundation of our constitutional monarchy, and were the original of our modern code of manners. Indeed, as Sir James Macintosh has well observed, "Feudalism and its offshoot, Chivalry, constitute the great distinction between ancient and modern civilisation;" to which observation I may add that they are also the prominent features which distinguish the politics and society of the Old World from those of the New. Woman never occupied so important a position in Greek and Roman society as she does in ours; while the powerful sentiments of loyalty and allegiance which bind our English society together, as to its centre the Sovereign, are feelings to which the Americans are strangers. In so far as the latter people have borrowed their legal principles and social customs from us, they are tinged with the spirit of Feudalism; but, as their mode of government is essentially democratic, and Feudalism was essentially aristocratic, their political institutions and the instincts created by them are different from ours, because they are based upon a different foundation.

Our whole life, political and social, is thoroughly feudal; and so long as the English gentleman receives the guests

he invites to his table with stately ceremony and etiquette, the English farmer regards his landlord with respectful awe, and the retired capitalist aspires to the dignity of a landowner and the lordship of the manor, so long will the spirit of Feudalism fashion our ideas and influence our social relations. I am therefore all the more confident in reading this paper to you, because the nature of my subject must have already enlisted your interest, whatever may be the attention which my mode of treatment may deserve at your hands.

When the battle of Hastings gave to William of Normandy the crown and realm of England, and the subjection of the various counties and districts followed, each Norman chieftain was left to carve out his own portion of the conquered territory, and maintain his own right therein. During the twenty years of confusion and civil warfare which necessarily ensued, the position of the king was that of the successful leader of a band of adventurers established in the lands and habitations of a conquered nation. A kingdom so defenceless as this condition of things must have rendered England, was a tempting prey to a foreign invader, and hence we read that the Duke of Normandy's newly-acquired dominion was very soon threatened by formidable armaments preparing by the King of Denmark. The Conqueror immediately availed himself of the impending danger to place his kingdom in a state of defence—a measure which he was the more readily enabled to accomplish by the information which the Great Survey of the realm, then just completed, afforded him of the strength and resources at his command. For this purpose he held a great council and military array of the kingdom on Salisbury Plain, in the year 1086. There were present 60,000 men, all possessors of at least a portion of land sufficient to maintain a horse, or to provide a complete

suit of armour. All of these, before they separated, voluntarily surrendered to the king the estates they had conquered, and received them back on such conditions as insured to the realm and crown for the future a well-appointed army for the defence of both, and revenue and services for the support of the latter. Thus was the Feudal System by law established in England; and the tenures by which it was upheld were those which affected the subject either as a soldier, a defender of the country, or as a farmer and tradesman, a producer of its wealth and subsistence.

If we could have accompanied one of the great landowners from this first feudal array of the realm to that portion of its soil which he had hitherto appropriated by the right of the sword, but which the sovereign had now by law granted to him in fief, we should probably have witnessed that his first act on his arrival was to assemble, in like manner as the king had done, all the dwellers or tenants on his estate, and then divide anew his lands among them. Perched on the summit of some isolated rock or commanding eminence, his castle-keep, strengthened by both nature and art, overlooked his little realm. In this fortress himself and family and personal attendant freemen made their abode, and around them lay that portion of the estate which the lord of the castle retained as his own domain, to be cultivated for his own immediate support by his slaves or villeins, who huddled together in the group of huts which formed the feudal village situated beneath the frowning walls of the donjon keep. The rest of the estate beyond this domain of the lord was allotted to the freemen or *liberi homines* of the manor, of whom there were two classes—the *knights* or *military tenants*, the nobly-born, who held their fiefs by the tenure of *knight-service* or *chivalry*, the same as that by which their lord held from the king; and the *socage-men* or *yeomanry*, who held, as their name implies, by a *plough* or *agricultural tenure*, farming

their lands for the mutual benefit of their lord and themselves. Whereas, in the earlier years of the Feudal period, the knightly tenants were the Norman followers of their lord; these were generally Saxon thanes, reduced from their rank of nobility. They were termed ignoble; and the service by which they held their lands, though worthy of a freeman, was considered base and degrading in an age when the sword and the battle-axe were held to be more honourable implements than the spade or the shuttle. But, if peaceful, and therefore derogatory to a gentleman, their occupation, the training they received in forestry and field sports, contributed to too many victories for them to be despised; and, as the bowmen and billmen of Old England, they will ever have their deeds of prowess sung in strains as triumphant as those which record the exploits of the Black Prince or Henry of Monmouth.

Of this free and sturdy class, Chaucer has given us two characteristic portraits in the prologue to his *Canterbury Tales*—the Yeoman and the Miller. The former is represented as in attendance upon his lord while making the pilgrimage to the shrine of St. Thomas à Becket; but as he was a military yeoman, who rendered personal military service, in addition to other obligations, for the land which he farmed, we will pass on to the Miller, who belonged more directly to the peasantry or farming class, paying his fee to the lord in kind, as by meal, malt or other produce.

“The Miller was a stout carle for the nones;  
 Full big he was of brawn, and eke of bones  
 That proved well, for over all there he came.  
 At wrestling he would bear away the ram.  
 He was short shouldered, broad, a thicke gnarre,  
 There n’as no door that he n’ould heave off bar,  
 Or break it at a running with his head.  
 His beard, as any sow or fox, was red,

And thereto broad, as though it were a spade.  
 Upon the cop right of his nose he had  
 A wart, and thereon stood a tuft of hairs  
 Red as the bristles of a sow's ears.  
 His nosê-thirlés blacké were and wide ;  
 A sword and buckler bare he by his side.  
 His mouth as widé was as a furnáce,  
 He was a jangler and a goliardeis,  
 And that was most of sin and harlotries.  
 Well could he stealen corn, and tollén thrice,  
 And yet he had a thumb of gold, pardé,  
 A white coat and a blue hood wearéd he.  
 A baggêpipe well could he blow and soun,  
 And therewithal he brought us out of town."

This Miller is a perfect type of the class to which he belonged, who, being all freeholders, and inheriting the love of individual liberty of their Saxon forefathers, were a free, outspoken, rollicking set of men, ever ready, as the men of Kent, for a riot or a brawl. Thus the Miller, before the pilgrims set out from the Tabard Inn, "for drinking was all pale, so that unethes (uneasily) on his horse he sat." And before he began his tale, which he persisted in telling out of his turn, he says—

"But first I make a protestatioun  
 That I am drunk, I know it by my soun,  
 And therefore if that I mispeak or say,  
 Write it the ale of Southwark, I you pray."

It is time, however, that we now turn our attention to the *villein* or *slave* class of tenants upon the lord's estate. As the free tenants were divided by their birth into the two sections of noble and ignoble, so these were composed of two grades.

First, there were those who had been partially emancipated, or who, being freemen, held tenements, on the condition of rendering services which were base and uncertain, by which, though personally free, they were territorially in

servitude. Their tenure was called *villein socage*; they were the *villeins regardant*, who by prescription were attached to the manor of their lord, and, according to some authorities, could not be separated from it. Hallam, however, quoting from Bracton, says they could at any time be dispossessed by the will of their lord, though their chattels were secure from seizure and their person from injury. To this body belonged the *bordarii* and *cottarii* of Domesday Book; cottagers who held their cottage and patch of land on condition that they provided the lord's table with poultry (called hen rents), eggs, and other small provisions, and also paid scharnpenny and averpenny, that is, dung penny and arable land (aver) penny. Craftsmen, such as smiths, carpenters, and armourers, who had been instructed in their trades at the charge of their masters, also belonged to this class.

One of these *villein socmen* was Chaucer's Ploughman, whom he thus describes:—

“ A true swinker and a good was he ;  
 Living in peace and perfect charity.  
 God loved he best with alle his heart  
 At alle times, were it gain or smart ;  
 And then his neighébour right as himselve.  
 He wouldé threshe, and thereto dike, and delve  
 For Christé's sake, for every poore wight  
 Withouten hire, if it lay in his might.”

To the craftsmen had also formerly belonged the Reeve, who in youth had learned “a good misteré” and “was a well good wright, a carpenter.” But he was a cautious, calculating, reserved kind of man, who was determined to rise by some scheme or other. He was therefore an excellent business man; so excellent, indeed, that no auditor was able to overreach or detect him in his accounts; yet he contrived to make great gains out of his lord, and always made better purchases for himself than for his master. For all which he

pleased his lord right "subtilly," and obtained from him not only thanks but occasionally "a coat and hood."

Under these half-emancipated tenants, and lowest of all, were the *pure villeins* or *villeins in gross*, who could be bought and sold without any regard to the manor. They were the *servi*, the *thralls*, and were the absolute property of their masters both in body and chattels. Therefore they could acquire no property of their own; they had no right of action against their lord, and if they fled from his service he could legally recover them by the writ *de nativitate probandâ*. Their children were born to the same state of servitude, and, though their mother might be a freewoman, their father being a slave, they were slaves also. The absolute dependence of these *villiens in gross* upon their lord is well illustrated in the Clerk's Tale, the most affecting of all the stories told by the Canterbury Pilgrims. The Lord Walter, being urged by his people to take a wife, consents to wed, and presently, to the surprise of all, proposes to marry Grisildis, the daughter of Janicola, one of his villeins. The latter, quaking with fear, and knowing that he has no choice of acceptance or denial, can only say, as by feudal law he is bound, "Lord, my will is as ye will; nor against your liking may I determine aught—right as you list, governeth this mattère." Grisildis herself is not consulted; she is simply told that the marriage is to be, and that she will be expected to carry into her new position all the allegiance and submission, in every extremity, which she owes to her lord, as his villein. He demands of her—

"Be ye ready with good heart  
To all my lust, and that I freely may  
As me best liketh, do you laugh or smart,  
And never ye to grutchen, night nor day,  
Neither by word nor frowning countenance?  
Swear this, and here I swear our alliance."

She swears as he requires, and then, as her children are born, and she is asked to give them up one after another, to be taken away from her, her language under every trial and provocation is—

“ Lord, all lieth in your pleasance.

My child and I with hearty obeisance  
Be yourés all, and ye may save or spill  
Your owen thing.

“ Ye be my lord, doeth with your owen thing  
Right as ye list.”

In other words, she acknowledges that he is absolute master of her life, liberty, and honour, by the recognised laws of the Feudal System, and that it is her duty, even though she is his wife, not to presume upon his will or wish, for he is still her lord, and she is still his villein. Nay further. Even when he puts her away, and requires her to prepare the chambers for a new wife that he intends to bring in her stead, she still replies—

“ I am glad

To do your luste, but I desire also  
You for to serve and please in my degree  
Withouten fainting.”

“ To love you best with all my true intent.”

Having thus seen what were the mutual relations which existed between the lord and the agricultural tenants on his manor, let us now take a general view of the estate. The persons employed on the manorial farm were the reeve or steward, the bailiff, the head harvestman, carters, ploughmen, plough-drivers, shepherds, swineherds, and deyes, the lowest of farm labourers. The steward held the manorial courts, and preserved all the manorial privileges; he kept the chief accounts of the household and farm, and superintended the domestics. Next to the steward was the bailiff, who super-

intended all the farming operations; then came the head harvestman, who was annually elected by the tenants, and during his year of office ate at the lord's table, and had a horse kept for him in the stables. The plough-driver, the farrier, and the huntsman slept in the same building with their cattle. The lighter labours of husbandry, as the winnowing of corn, the care of the poultry, and the tending of the young cattle, were undertaken by women. All were duly taken care of by the lord, and, as the villeins were saleable property, Magna Charta forbade guardians to *waste the men* of their wards. This selling of villeins was a common practice, especially in the twelfth and thirteenth centuries; Bristol and York were the chief slave markets, whence they were sent to Ireland, Scotland, and Denmark. Gradually, however, the serfs passed from this miserable condition to the position of free labourers, and many circumstances aided them in their progress upwards.

The first of these in the order of time was the rise of the *copyholders*—villeins who, instead of being obliged to perform every mean and servile office that the arbitrary will of their lord demanded, had been allowed to hold the lands they occupied on condition of rendering agricultural services which were free and certain. For example, they were to reap the lord's corn or cleanse his fish-pond, harrow his land or cart his timber, so many days in the year. These men sprang from the *bordarii*, and they were called *copyholders*, because the services by which they were bound were recorded in the lord's book or roll of his Court Baron, a copy of which, signed by the steward, was the proof of their tenancy. The number of these copyholders began sensibly to increase about the time of Edward I., though it was not till the reign of Edward IV. that the tenants' copy of the court roll was a complete legal bar against dispossession by the lord.

The next steps towards the emancipation of the villeins

were the payment of wages, and the hiring of labourers. As early as 1257, a serf, if employed before midsummer, received wages; and he was allowed to find a substitute, if he did not work himself. From which it is obvious, first, that the serf had already acquired a right of property, and must have possessed the means of hiring a labourer and, secondly, that there had arisen a class of labourers who were practically free, because they were at liberty to sell their services. This state of things had probably been brought about in this manner. The lord's domain, originally large enough to occupy all his villeins, had gradually become contracted by alienations, sales, and demises, so that he had not so many means of employment as formerly. He therefore allowed them to become free and voluntary labourers for others. But he still retained his original rights over them; they were still his villeins; their earnings were, by law, entirely at his disposal, and he had every right, as their master, to make a profit of their labour. The lord, however, was wealthy beyond his wants; he was too haughty and proud to descend to such pitiful gains; the rapacity of commercial times had not yet corrupted society, and the lord was more ambitious to win the affections of his dependents than to improve his fortune at their expense. Villeins therefore became hired labourers in husbandry for the greater part of the year, by which they obtained a part of the immunities of freemen; and this, together with the right of property which the copyholders acquired, placed them in that position of the social scale which enabled them to treat and contend with their masters for the remainder. All the advances they made after this were but extensions and improvements of these two concessions; and, as many opportunities for acquiring freedom offered themselves after this, the villeins rapidly rose to emancipation.

The most important of these was the improved condition

of the towns, where the superior comforts and privileges enjoyed by the inhabitants inspired the agricultural population with a desire for similar freedom and comfort. The "uplandish folk," however, had no means of forming that union which gave to the towns their strength and influence. Each serf, therefore, endeavoured, with the little stock of savings he had secretly accumulated, to escape to some enfranchised town, and there hide himself for a year and a day, after which he became legally free. In such a country as England, a villein could easily escape. The different counties were much more unequal than now as regarded their agriculture and population, and when the serfs were allowed to hire themselves to other masters, they naturally emigrated to those counties where provisions were cheap and employment plentiful. If the villein, therefore, engaged his voluntary labour to a distant employer, he might well hope to be forgotten, or to remain undiscovered by his lord; and there was so little communication between remote parts of the country that it was the villein's own fault, or else his singular ill-fortune, if his master ever claimed him. Even then the law did all it could to favour him, and threw every obstacle in the way of the lord's suit.

Another series of circumstances which operated favourably in converting the villeins into free labourers was the long wars carried on against France by our Plantagenet kings. To recruit their exhausted armies these sovereigns were obliged to manumit their villeins, because none but a freeman was allowed to engage in war. When the campaign was over these emancipated villeins returned home, and the freedom they had thus acquired excited discontent in those who still remained in servitude, and induced them to form confederacies for the attainment of their liberty, and to raise that formidable rebellion under Wat Tyler, which at one time threatened the very existence of the government.

About the same time, *i. e.* in 1349, there broke out the great pestilence called the Black Death, which swept from the earth nearly one-half the inhabitants. The majority of these were, as we may easily apprehend, of the lower orders, and the consequence was that after the calamity was over labour became scarce, and therefore extremely dear. The labourers, practically acquainted with the natural law of supply and demand, asked for unusually high wages. Instead of leaving the matter to regulate itself, the government, totally ignorant, as everybody then was, of the principles of political economy, issued a proclamation to fix the price of labour. But the proclamation was not attended to; and the parliament enacted the famous Statute of Labourers, to enforce obedience by fines and corporal punishment. A mower, after the pestilence, demanded 12d. a day, and a reaper 8d., with food; wages which were respectively equal to 15s. and 10s. a day in our money. This was exorbitant, and, if persisted in, would soon have ruined capital. The statute therefore enacted that carters, ploughmen, plough-drivers, shepherds, swineherds, and other servants should be content with such liveries and wages as they had received before the pestilence. That where they had been paid in wheat they should receive wheat; that mowers should receive 5d. a day, reapers 2d. and 3d. a day, without food, and weeders and haymakers 1d. a day. And the statute further enacted, that farm labourers were to be hired by the year and not by the day, and that they were to carry the implements of husbandry openly in their hands to the market towns, and apply for hire in the public streets. One would suppose that such a needless interference with the freedom of industry should soon have led to results which would have opened the eyes of the parliament to the folly of such enactments. But it was not so; and the principle of legislation thus begun was maintained and considerably

extended for some centuries after this. In 1363 the Statute of Apparel was passed, to regulate the diet and dress of labourers and artisans. It directed that artificers and servants should be served only once a day with meat and fish, or the waste of other victuals, as milk and cheese; and that they should wear cloth of the value of 12d. a yard, and no more. The cloth worn by yeomen and tradesmen was not to cost more than 18d. a yard, while farm labourers were to wear no kind of cloth except that called black russet, at 12d. a yard. Clothiers were commanded to manufacture the qualities of cloth thus specified, and tradesmen to have a sufficient stock upon hand at the above prices. In 1388 another statute, called the Second Statute of Labourers, was enacted, confining the labourers to one locality, and empowering the justices of the peace to fix the price of labour every Easter and Michaelmas by proclamation.

Now, I should be wasting your time if I dilated upon the absurdity of this legislation, that fixed the wages for which a workman should labour, what he should eat, and how he should be clothed, all which is so utterly at variance with the feelings and intelligence of the present age. But there is one important deduction which may be drawn from it, and to which I would direct your observation: this is, the evidence which these statutes afford of the new social elements that had risen into importance. A great portion of the labourers must have clearly emancipated themselves from the grasp of their feudal masters, when, instead of the arbitrary will of their employers, it was found necessary to resort to acts of parliament to compel them to work. The time was the end of the fourteenth century; the great mass of the people were, as compared with their forefathers three hundred years before, rich, thriving, and independent; and the change in their opinions had kept pace with the improvement in their social condition. In the popular outbreak

under Wat the Tyler, of Deptford, the demands which the villeins made bespoke men not unacquainted with the essentials of personal liberty, and showed that the spirit of freedom was abroad, which would soon remove the last harsh and oppressive bonds which yet bound the villein to his master. The rebellion of Jack Cade, seventy years later, confirmed in the people this conviction of their strength, and helped them forward in their course. In this second rising not a word was said about villeinage ; that question had been settled, but the people demanded the redress of national grievances, and complained of the unjust administration of the government. The fact is, that in the fifteenth century the old feudal relations of lord and villein, master and slave, had become superseded by the modern ones of landlord and tenant, master and workman, rent and wages. The landlord had now tenants, who held leases, instead of being bound to the soil by feudal service. The man who farmed the land had now hired and free labourers, whom he paid partly in money and partly in board and lodging, or whom he paid wholly in money. There were no thralls, with collars on their necks, like dogs. Instead of the spirit of mutual dependence which had in the early Feudal age bound lord and vassal together—when the lord looked to his vassal for service, and the vassal looked to his lord for maintenance and protection—there had now arisen a spirit of commerce, and of hard bargaining between landlord and tenant ; distrains for rent were common occurrences, for agriculture was so imperfect that bad seasons often occurred, and they always produced misery. The full average crop of an acre of wheat was seldom more than nine or ten bushels, and the price of corn rose and fell in a most extraordinary manner. Just before harvest it would be £5 or £6 a quarter, and just after harvest it would suddenly fall as low as 6s. 8d. The reason of this was that farmers sold

their crops as soon as they were got in, when the market was glutted: such a tradesman as a corn factor was nowhere to be found, and the only stores of corn were in the castles, abbeys, and granges. When the people bought their corn, or labourers received their quantity from their employers, they bought and received their supply for the year; and as they bought it cheap, and received it in large quantities, they were improvident in their consumption of it, so that, before the next harvest came, it was scarce, and its price beyond their means. Famines therefore resulted.

Robert Langland, a poet of that day, refers to this in his poem called "The Vision of Piers Plowman." Immediately after a favourable harvest the people were very particular in what they ate, but just before harvest they were only too glad to get anything. In the poem, a personage named Hunger comes to the Plowman, gives him some advice as to the regulation of his appetite, and then demands his dinner in return. "If God permit," says he, "hence not will I wend, till I have dined by this day, and drunken both." To this the Plowman replies that he has "no penny to buy either pullet, or goose, or pig; but that he has two green cheeses, a few curds and cream, and an havercake (oatcake); besides which he has two loaves of beans and bran, which he had baked for his folk." "But, by my soul," quoth he, "I have no salt bacon, nor yet a cokenay (or cook) collops for to make. I have, however, parsley and porets (leeks), and many coleplants.

"And eke a cow and a calf, and a cart mare  
To draw a-field my dung, the while the drought lasteth.  
And by this livelihood I must live till Lammas time,  
By that I hope to have harvest in my croft;  
*And then, I may dress my dinner as me pleaseth."*

So Piers Plowman and all the poor folk fed Hunger with peascods, beans, baken apples, onions, ripe cherries, and

other fruits and vegetables till harvest-time. Then "new corn came to cheaping" (became cheap): folk were glad, and fed hunger with the best. They gave him good ale, which made him sleepy. Even beggars, then, would not eat bread that had beans in it: it must either be of pure wheat, or such delicate kinds as "coket and clermatyne," which were used for breakfast. As for halfpenny ale, a beggar would in no wise drink that: he would have none but the best and brownest that was sold in booth or borough. Labourers would have no old worts or cabbages for dinner and supper, as they had at other times; they would have no penny ale or bacon; but they insisted upon fresh meat, and fish either fried or baked, and hot and just cooked too." Robert Langland elsewhere inveighs with great vehemence against these excessive demands of the peasantry, their great indolence after the harvest was gathered in, and the heedless profusion with which they consumed their provisions while they were plentiful. But to a people just emerged from a state of dependence and degradation, as the Feudal system was for the villeins, we can hardly attribute blame for the lack of those virtues, prudence, foresight, thrift, which only a state of freedom and independence of action can develop. Agriculture, moreover, was then in a very imperfect condition; the judicious rotation of crops, and the use of hay and artificial grasses for winter provender, were unknown; so that there were no means of keeping cattle through the winter, except such as the natural pastures afforded. When Martinmas came, therefore, great numbers of beeves, sheep, swine, and even deer were killed and salted for the winter on every manor, which, together with salted and cured fish, milk, cheese, and bread, were given out to each tenant by the lord, in proportions varying according to the value of his tenement. Implements of agriculture were few and inexpensive, the user generally making them himself. An iron

ploughshare, an axe, and a spade were the only articles the peasant purchased, and ploughing was such a slow process that not more than half an acre could be turned up in a day, with six oxen at the front.

The dwellings of the peasantry were as wretched in character as their agriculture. They were slightly set up, with a few posts and many radels or hurdles, cast all over with thick clay to keep out the wind. The stable and all offices were under the same roof as the family sitting and sleeping room. There was little or no furniture; the settle by day was the bed by night, and the pot and the trivet were the only cooking utensils. There was no chimney; and this, according to Harrison,\* an Elizabethan writer, was a positive advantage, because the smoke not only hardened the timbers but kept out the cold, and was reputed a capital medicine to keep the good man and his family from the ague, rheums, catarrhs, and colds in the head. The bed consisted of straw, which was seldom renewed, and was therefore, as Erasmus says, an ancient accumulation of filth and refuse. "Our fathers," again remarks Harrison, "yea and we ourselves also, have lien full oft upon straw pallets, on rough mats covered over with a sheet, under coverlets made of dagswain or hopharlots (patchwork), and a good round log under their heads instead of a bolster or a pillow. If it was so that our fathers, or the goodman of the house, had within seven years after his marriage purchased a mattress or flock-bed, and thereto a sack of chaff to rest his head upon, he thought himself to be as well lodged as the lord, that peradventure lay seldom on a bed of down or whole feathers." "As for servants (and labourers), if they had any sheet above them it was well: for seldom had they any under their bodies, to keep them from the pricking straws that ran oft through the canvas of the pallet, and rased (scratched) their hardened

\* Description of England, prefixed to Hollinshed,

hides." For it must be understood that, bare as they were of bedclothes, our forefathers of every class slept quite naked. Chaucer, Gower, Lydgate, and all our ancient writers allude to this custom.

In the "Squire of Low Degree" there is a curious instance—

" She rose, that lady dear,  
To take her leave of that squyere,  
All so naked as she was born  
She stood her chamber door before."

The misery and poverty which the feudal peasantry thus endured were, however, the natural accompaniments of their transition from bondage to freedom. So long as the villein was the property of his feudal lord, it was the interest of the latter to take care that his property was not injured or incapacitated for work. The power which the lord wielded, in fact, was that of a mild despotism; no one upon his estate, who was in health, wanted employment or sustenance, nor was any one overworked; none who were ill failed to receive attention and medicine, and generous and suitable food from the lady—the breadgiver of the manor. The villein's condition, therefore, though slavish and degrading in the estimation of a free country like ours, was, so far as physical comforts went, far superior to that which was his lot when he became a free labourer. And even as a free labourer he had many advantages which the modern peasant does not enjoy. In the first place, his wages went farther, notwithstanding the constant debasements of the coin. Butcher's meat was less than a halfpenny a pound in the time of King Henry VI.; other necessities were equally as cheap; so that we find when the labourer's wages were paid in money and board, the latter was reckoned as not worth more than half his gross pay, while the artisan's was set down at one-third. The labourer, again, was in little danger

of being thrown out of employment, because he was engaged by contract for not less than a year, and he could not be dismissed before the expiration of his term, unless very serious misconduct was proved against him before two magistrates. He had, besides, a weekly holiday, on account of some saint's day or other festival; and the extensive ranges of common and unenclosed forest lands furnished his fuel gratis, and fed his pigs, cattle, and poultry.

Whether, however, they possessed material comforts in their feudal servitude, or were pinched with occasional famines in the early times of their independence, the old English peasantry were a bold and fearless race, justly deserving the poet's epithet, "their country's pride." The village green was the frequent arena of athletic sports; fairs which lasted for weeks together were held near all the chief towns; and here, besides traders, there assembled mummers and jesters, with their tricks and dances; jugglers and minstrels, with their morality plays; and all the other members of that motley tribe whose jokes and antics are the especial delight of a rustic population. In castle and hall, in the street and on the common, pleasures and entertainments were then free to all; and the lightheartedness and love of fun, which both Scott and Bulwer describe as marking the conduct of the people at every pageant and feat of arms, could not have sprung from hearts which were bowed down with oppression, or cankered with bitter struggles against penury and want. But we have higher authority than these for this pleasing character of society in the Feudal age—none less than that of Chaucer himself. Among the twenty-nine pilgrims whom he assembles for one common object at the Tabard Inn in Southwark, we find the greatest freedom of social intercourse. The knight feels no humiliation in telling a tale in turn with the miller, nor the franklin with the ploughman; the sergeant-at-law, who sat as judge

at the assize, is the wayside companion of the cook, the carpenter, and the weaver, and eats at the same board ; and the merchant does not fear to compromise his position by familiarity with the rough shipman. The poor pilgrims show no slavish submission to those among them of high blood or great wealth ; nor do the latter assert their dignity by any assumption of haughtiness or reserve. And yet their distinctions of class are clearly marked. This free intercourse could only result from mutual respect—a feeling which the principles of our feudal constitution fostered, which has been inherited from our Saxon forefathers, and which, so long as it continues amongst us, will make England great.

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#### SIXTH ORDINARY MEETING.

ROYAL INSTITUTION, January 9th, 1865.

J. A. PICTON, Esq., PRESIDENT, in the Chair.

Ladies had been invited by the Council to this meeting.

The SECRETARY drew attention to the death of Dr. D. P. Thomson, for several years Secretary to the Society, which took place at Wakenaam, Essequibo, early in December last. He read from the *Courier* a short obituary notice of the deceased.

Dr. IMLACH referred also to the same object, and moved that a vote of condolence be sent from the Society to the deceased gentleman's widow, which was carried unanimously.

The following gentlemen were balloted for, and duly elected ordinary members :—Mr. William Walthew, Mr. Astrup Cariss, Mr. Robert E. Stewart, L.D.S., and Rev. E. S. Howse, B.A.

The following Paper was then read :—

## ON PICTURE PRINTING.

BY MR. D. MARPLES.

THE great extent to which the Printing Press and Printing Machine have been brought into requisition to multiply works of Art, the vast amount of taste and skill exhibited in embodying the conceptions of the artist, and the extremely low prices at which, considering their comparative excellence, these beautiful productions are sold, are striking characteristics of the times in which we live. Volumes not a few, whose chief though not their only attraction is found in their embellishments, are continually multiplying our sources of rational enjoyment; while several of the more popular weekly or monthly serials are thus adorned, with but a trifling, if any, increase to their cost. They differ widely from each other as to the artistic taste or typographical skill displayed in their production; but the humblest of them are greatly in advance of those which were produced a hundred, or even fifty years ago, and which can only be said to have afforded the cheering hope that the Press would, at no distant day, commence a new page of its wondrous history—developing a new power, and adding another to the many claims which it may justly prefer to the lasting gratitude of the country and of the world: while the growing taste for these beautiful productions of the press is the best security that they will continue to improve. It is marvellous to see what a little smart competition will do in the direction of excellence.

Considering the rapid strides towards perfection which the newly-discovered art of printing made within the first half century after its invention—or revival and extension—it

would have been matter of surprise if attempts had not been made, very early in its history, to decorate to some extent the works which issued from the press, in order to increase their attractiveness. To imitate the illuminations of the beautiful MSS. they were so soon to replace, may have been beyond the aspirations of the most gifted or ambitious of the early printers, either in this country or on the continent of Europe; but what at that time was within their power they accomplished. Initial letters, of great brilliancy of colour, were printed at the commencement of chapters, while in many instances the old illuminator had to fill in these initial letters, with pen or pencil, in blank spaces left for them by the printer. In these cases, not unfrequently, some of the capital letters in the body of the work received a slight ornamentation. It is true that the woodcut embellishments of early printed books, whether plain or coloured, have few attractions for modern eyes, evincing, as they too frequently do, great want of taste on the part of both engraver and colourer, and in many particulars violating all the canons of art.

Briefly to trace the progress of printing in Colours, from the introduction of the initial letters into printed books in the fifteenth century, down to the production of the elaborate works of the present day; and to point out the difference betwixt pictures executed from wood blocks alone, and those from a combination of wood blocks and aquatint\* or mezzotint† plates, or lithographic stones, is the object of this Paper. Actively engaged, until very recently, in a

\* Aquatinta, from *aqua*, water, and *tinta* (Ital.) dye—a method of etching on copper, by which a beautiful effect is produced, resembling a fine drawing in water colour or Indian ink.

† Mezzotint, from *mezzo* (Ital.) and *tinto* (Lat. *tinctus*) painted—a particular manner of engraving, or representation of figures, on copper, in imitation of painting in Indian ink. To accomplish this, the plate is scratched and furrowed, in different directions, after which the parts where the lights of the piece are to be are scraped away, the parts to represent the shades and darker parts being left, to receive the ink in the ordinary way.

business which necessarily absorbs so much time and thought, but little leisure has been left to me, even had pecuniary means been at my disposal, to make a large collection. Nor is this of much importance, so far as the illustration of this Paper is concerned, since it is confidently hoped that even the few specimens submitted, some of them the best of their class,\* will be found of sufficient interest to repay the sacrifice of time occupied in the description or examination of them.

The art of Printing, as connected with the production of books, had its origin in Europe about the commencement of the fifteenth century, and was rapidly diffused throughout Christendom. That it may with some degree of certainty be ascribed to, or rather that it arose out of, the art of engraving on wood,—the origin of which was undoubtedly prior to it, although the precise period has never yet been satisfactorily demonstrated,—will appear in the sequel.

It is the opinion of some that the art is of Asiatic origin, and that China has the strongest claim to the honour of the invention.† According to Chinese chronology, indeed, the art of printing was discovered and practised in the Celestial Empire about fifty years before the birth of Christ, and printed works exist, supposed to be of very remote antiquity, executed, as Chinese books until very recently were, from wooden blocks. In corroboration of the supposed early use of the art among that singular people, Marco Polo, the Venetian traveller, who visited Tartary, China, and other

\* For a list of the specimens submitted, see Note, p. 94.

† Since this Paper was read, the following extract has come under the notice of the writer:—"There is some probability that this art originated in China, where it was practised long before it was known in Europe. . . . That the Romans did not practise the art of printing cannot but excite our astonishment, since they actually used it, unconscious of their rich possession. I have seen Roman stereotypes, or immoveable printing types, with which they stamped their pottery. How in daily practising the art, though confined to this object, it did not occur to so ingenious a people to print their literary works, is not easily to be accounted for. . . . Not a hint of the art itself appears in their writings.—*D'Israeli's Curiosities of Literature.*

countries in the East in the thirteenth century, is represented as having seen their paper money, on which, to quote his own remarks, "the principal officer deputed by the Cham smears with cinnabar the seal consigned to him, and imprints it upon the money, so that the figure of the seal, coloured in cinnabar, remains impressed upon it." With this exception, the most diligent and intelligent investigators have failed to discover, during the long interval of fifteen centuries which elapsed from this assumed exercise of the art in China, to the time when it was again discovered, or revived and extended, in Europe, any indication that it was practised, or even thought of. I may here state that, in a conversation I once had with the late Rev. Dr. David Thom, that gentleman informed me that, in a letter recently received from his brother, then an employé under Government, and whose early and unexpected death was regarded at the time as a national loss, the writer stated his decided conviction that Chinese books which had come under his own personal observation had been produced from wood blocks antecedent to the Christian era.

But let us inquire what authority there is for the remark that the art of printing arose out of that of wood engraving, or rather was an extension of it to another and greatly more important purpose than that to which it was originally applied. The earliest information concerning wood engraving in Europe is given by Papillon, a French writer, whose historical treatise on the art was published in Paris in 1766. He states that the first work produced was a representation of the actions of Alexander the Great, executed in eight pieces, about the year 1285. Ottley, an English writer on the same interesting subject, after a careful consideration of the evidence furnished by Papillon, compared with the results of his own researches, coincides in his opinion, that engraving on wood was practised as early as the thirteenth century, in those parts of Italy which border on the Gulf of Venice.

It is not a little remarkable that the next application of the art of which there is any record was to purposes of amusement rather than of utility. In a document bearing the date of 1392, a Register of Accounts of the French Court of that period, there is an entry for three packs of cards, of three different kinds, of a sum so utterly inadequate as a remuneration for the labour which must have been bestowed upon them, even in those days, if executed entirely with the hand, as to lead to the supposition that the outlines were first printed from wood blocks, the cards being afterwards coloured and gilt by hand; more especially because, being for the king's use, it is natural to suppose they would be executed with more than ordinary care. This supposition is strengthened also by official documents of the government of Venice, intended to secure to the Venetian artists the exclusive production of playing cards. A decree, dated the 11th October, 1441, refers to "the great quantity of playing cards and coloured figures printed, made *out of* Venice, to which evil it is necessary to apply some remedy, in order that the artists, who are a great many in family, may find encouragement, rather than foreigners." Now, if wood engraving, and printing from those engravings, as practised in Venice, had become an established and lucrative branch of commerce, affording the means of subsistence to a large family or body of artists, and at the date of the decree just referred to the trade had been brought by foreign competition to such a state of decay as to call for legislative enactment to insure to its professors future support, it is a legitimate conclusion that the art must have been practised for a considerable period, little if anything short of half a century.

As the art of wood engraving proceeded, its professors composed historical subjects, with a text or explanation subjoined, sometimes placed below, sometimes on the side, and not unfrequently proceeding, as a label, from the mouth of

the figure or personage depicted. The books of images are of this description, the printed pages of which are placed opposite to each other in pairs, and as only one side of the paper is printed upon, the blank pages also come opposite to each other. Now, if the leaves thus printed were pasted together, it would give them the appearance of a book printed in the usual way, on both sides of the paper. This, I may remark in passing, is the ordinary mode of book printing in China at the present day, even where the beautiful founts of type prepared by the agents of our great Missionary Societies are used; while the mode of taking an impression at present practised by the Celestials on all common work is that by which it is supposed the earliest impressions from wood blocks were produced in Europe, as in China, namely by horizontal rubbing, rather than by lateral pressure. This, too, is the mode which the wood engravers of the present day adopt in taking proofs of their work.

The earliest print from a wood block of which we have any certain date is a representation of St. Christopher carrying the infant Saviour across the sea—the date 1423. This, with another print representing the Annunciation, and a third, of the Martyrdom of St. Sebastian, supposed to be executed about the same period, bring down the productions of the art to the precise period when books printed from wood blocks,—the books of images already adverted to,—were supposed to be first produced. These books of images are described by bibliographers under two classes, those without text, and those with. The most celebrated, as they were probably the earliest, are the *Biblia Pauperum*, which belongs to the former class, and the *Speculum Salutis*, which is of the latter class. The *Biblia Pauperum* consists of forty leaves small folio, each leaf containing a cut, with extracts or descriptive sentences, engraved on the wood. The *Speculum Salutis*, or Mirror of Salvation, said to be the most perfect,

in design and execution, is a compilation of historical passages from Scripture, with a few from profane history which have some relation to the Scriptural subjects, having also descriptive extracts or sentences engraved on the wood. So popular did this work become that it was translated into the German, Flemish, and other languages, and very frequently printed. Of two Latin editions which are extant, that which was believed by the late Rev. Hartwell Horne to be of the earliest date has the explanations of twenty-five of the cuts, and these not in regular succession, printed from entire wood blocks, while the explanations of the remainder, thirty-eight in number, and five leaves of preface, are printed from metal type worked with the blocks. In the Flemish and Dutch editions the entire text is printed from moveable metal types. Thus we perceive how, in the printing of books, the use of wood blocks gradually merged into that of moveable metal types. "After the groundwork of the art had been completed," observes Hansard, "its rise towards perfection was more rapid, perhaps, than that of any other art or science whatever; for little more than thirty years elapsed from the time of printing the *Biblia Pauperum* from wooden blocks, to the time when Guttenberg and Schoeffer had perfected their cast metallic types, as may be seen by the following chronological statement of the progress of the art:—

Printing from Blocks, invented about the year .....	1422.
„ Letters cut separate, on Wood .....	1488.
„ Letters cut separate, on Metal .....	1450.
„ Letters cast in Moulds .....	1456."

No surprise need be felt that, in possession of relics of a very remote antiquity which indicate a very early acquaintance with the principle upon which the art of printing depends, men should have been so slow to discover its capacity of promoting, by the diffusion of knowledge, the social improvement and substantial happiness of the great

human family. How many inventions of modern times have vainly sought admission into the temple of science, lingering at the threshold until the clay tabernacles of the minds which conceived them have mingled with their kindred dust. Prejudice, the dread of innovation, self-interest, and a variety of motives, some of them not very honourable, have been arrayed against these inventions, and retarded, if not entirely prevented, their introduction into general use. That this noble art was discovered, or revived, when it could best be applied, when the need of it was beginning to be felt, is abundantly evidenced by the fact of its rapid diffusion throughout the chief cities and towns of Europe. And that individual can hardly have studied the history of the last three centuries by the lamp of Divine truth, who fails to discover indications of an influence superior to that of man, or of any of the circumstances in which, from time to time, man may have been placed, directing, controlling, or overruling all events for the advancement of the highest and noblest ends. Be it ours gratefully to acknowledge our debt of obligation to the great Author of our being, for the advantages, civil, social, and sacred, which flow to us from the opportune introduction of the press into Europe, and the consequent emancipation of the human mind at the period of the Reformation as one of its results. And while we mourn over its thralldom in other lands, let us confidently anticipate the day when even there it shall be elevated, as in our own beloved country, if not to the constitutional acknowledgment, at least to the prestige, of a "fourth estate" of the realm. The details into which I have felt it necessary to enter can hardly fail to have awakened some interest in the subject of my paper: to me they appeared indispensable to a correct understanding of it. I now proceed with the history of what, for want of a better term, I have called PICTURE PRINTING.

As it is still matter of controversy to what individual the honour of the invention, or revival, of the art of printing in the fifteenth century is to be assigned, and where the art was first exercised, rival cities claiming it for their respective citizens; so with respect to the lighter branch of the art now before us, the production of pictures solely by the printing press, rival nations contend for the honour of having been its birthplace. Jackson, in his history of wood engraving, says, "In the first book which appeared with a date and the printer's name—the psalter, printed by Faust and Schoeffer, at Mentz, in 1457—the large initial letters engraved on wood, and printed in red and blue ink, are the most beautiful specimens of this kind of ornament which the united efforts of the wood engraver and the pressman have produced. They have been imitated in modern times, but not excelled. As they are the first letters, in point of time, printed with two colours, so are they likely to continue the first in point of excellence." Referring to the same book, and the same printers, he says, it "is, with respect to ornamental printing, their greatest work . . . and remains to the present day unsurpassed as a specimen of skill in ornamental printing."

Nearly half a century appears to have elapsed before any attempts were made to extend the range of printing in colours, when, towards the commencement of the sixteenth century, imitations of drawings in sepia, Indian ink, or any other colours, of two or more shades, were executed by means of two or three blocks. The older specimens of these imitations of drawings, to which the name of *chiaroscuro* is generally given, were seldom executed with more than three. It would appear that the lightest tint was always printed first, as an esteemed friend, to whom I am indebted for several of the specimens submitted this evening, is in possession of one by Ugo da Carpi, in three tints, of the death of Ananias, and

also of an impression of the first block only, which is in the lightest tint.

This branch of the art appears to have been cultivated with great success in Italy about the year 1518, and in the opinion of competent judges the specimens which have come down to modern times were, twenty or twenty-five years ago, unsurpassed by any modern production. Ugo da Carpi, the Italian engraver, greatly improved the art. Most of the prints executed by him are from designs by Raffaello, who is said himself to have drawn some of them on the wood. But, independent of the excellence of the designs, their great characteristics are said to be—effect, and simplicity of execution, all, with one or two exceptions, being produced with three blocks.

Many of Da Carpi's productions were copied by Andrea Andriani, of Milan, between 1589 and 1590, and one of them by Edward Kirkall, an English engraver, in 1722. This, however, is not entirely from wood blocks; the outlines, and the greater part of the shadows, are from a copperplate in mezzotint. Between 1722 and 1724 Kirkall published by subscription twelve *chiaroscuros*, engraved by himself, chiefly after designs by the old Italian masters, the sepia-coloured tints being printed from wood, and the outlines and darker parts of the figures from copperplates. They are represented as deficient in spirit, wanting the vigorous character of the older *chiaroscuros*. In the year 1754, Jackson, an English artist, published a work with the following title: "An Essay on the invention of Engraving and Printing in *Chiaroscuro*, as practised by Albert Durer, Hugo di Carpi, &c., and the application of it to the making Paper Hangings, of taste, duration, and elegance. By Mr. Jackson, of Battersea. Illustrated with Prints, in proper colours." The Essay contains eight prints, four of which are *chiaroscuros*, and four are imitations of drawings "in proper colours." With specimens before us by this artist executed in 1789, 1741,

and 1742, one cannot but feel some surprise that the illustrations in the volume, published in 1754, should have proved such egregious failures as most of them are.

From 1754, the date of Jackson's Essay, until 1819, the only *chiaroscuros* which appear to have been published in this country were executed by an amateur of the name of Skippe. Three are known to exist, one of which is printed from four blocks, and each of the others from three. A comparison of the one now submitted with the specimens in Jackson's Essay will show its great superiority. In the year just named, 1819, the first part, and in 1823 the second part, of a work on Decorative Printing, by William Savage, were published. Some of the *chiaroscuros* are well executed, but the prints in "proper colours," the printed pictures, are lamentable failures. It is due, however, to the author of this work to say, that he was entirely indebted to others, both for the embodiment of his ideas on the wood, and for their transference to the paper. Besides this great disadvantage, he had others; and it is but fair to say that no small portion of the coarseness which disfigures the specimens given in his book, as indeed in Jackson's, may have resulted more from the want of adaptation in the materials used, than of skill in the practical management of them. So that, taken as a whole, the pictorial illustrations of Mr. Savage's book may be said to stand in about the same relation to those of the artist next to be introduced to your notice, in which the best printing of that period stands to the more carefully executed work of the present day.

Mr. George Baxter, of London, whose works I next proceed to notice, took out a patent for printing pictures, which, though it may have secured to him for a long series of years a monopoly of the market for his beautiful productions, may also have tended to limit their sale. Less than any one of his predecessors does he appear under obligation to those who had gone before him for direction in his art, and yet no

one could by any possibility have had a more excellent training than he for a successful prosecution of it.

At an early age he was fond of drawing, and at ten years old took several sketches of spots near Lewes, and engraved them upon copper, which he learned to do without an instructor. In this he was sufficiently successful to lead to the publication of several of his productions. At fourteen he was desirous of being articled to some eminent engraver, but, the profession at that time being in a depressed state and struggling for want of public support, he failed to obtain his desire, and was apprenticed to his father. For seven years he devoted his attention to all the branches of his father's trade, succeeding best in those of a mechanical nature. His leisure hours he devoted principally to engraving on copper, and attained some degree of efficiency in aquatint, and engraving landscapes. On the introduction of lithographic printing, he was sent to London to receive instructions in the art, and in six months returned with presses, stones, &c., to introduce that trade into Sussex, in connection with his father's business of a general printer, &c. In a local work, printed by his father, several woodcuts were required, and he turned his attention to this style of engraving; in a few weeks he was able to engrave on wood as well as he had previously engraved on copper.

The most interesting stage of his history, however, so far as this Paper is concerned, he had now reached. About this time he was much occupied with colours, for both lithographic and printing inks, and succeeded in obtaining such a variety of beautiful tints as to impress upon him the conviction that, by means of blocks, he could print coloured pictures with even more richness than could be obtained by water colours, inasmuch as he could obtain the effect of "glazing," which can only be secured by oil colours. Having reached maturity, he left his father's establishment, where he had made himself master of every branch of the printing

business, and, his early desire to be an engraver continuing as fresh as it was seven years before, he placed himself under an eminent engraver on wood, and in a few months commenced business for himself in London. Many difficulties arose, which would have been insuperable to a mind less stored with resources, most of them mechanical; and here the training in his father's printing office was of immense value to him in the prosecution of his invention. His early efforts gave his employers so much satisfaction that as many engagements as he could fulfil were soon obtained, and two years afterwards he prepared to carry out his design of printing coloured pictures. He succeeded at first much beyond his expectations; but still every day found that some improvement could be made; and his latest improvements were such as to reduce to a certainty some points which were formerly doubtful. In proof of this, he had an order to execute two hundred thousand pictures, all of which were so much alike as to make it most difficult for any one to see a difference in the whole impression; whilst his improvements gave such expedition to the execution of his pictures as to secure to the public illustrations of the highest order to works of small cost.

From a careful examination of a considerable number of his prints, I have no doubt that his general practice was to produce the outline and the more minute details in aquatint, on one or more plates, to be subsequently heightened and coloured by engravings on wood (or, in the production of his larger pictures, on soft metal plates), two, three, or even four parts, in different colours, being printed at one impression from one block or plate. The extreme delicacy which he was able, by aquatint, to give to his skies greatly enhanced the beauty of some of his pictures, as in that of the Baptism in Jamaica. The perfect contrast to this picture which that of the shipwreck of the *Reliance* East Indiaman presents shows how wide a range of subjects is practicable—from the warm

and glowing brightness of a day in the tropics, the burning heat of which, while we gaze upon the picture, we almost seem to feel, to the fearful gloom of a storm at sea, where the billows and the clouds appear to commingle, and the darkness is but for a moment dispelled by the lightning's flash, which reveals to us the total wreck of the gallant ship, its unhappy crew and passengers vainly battling with the waves.

Of the extreme richness of his colours, a beautiful specimen is furnished in a bouquet of flowers, one of two illustrations to the Flower Garden, where every tint and hue of the flowers and the foliage is given with a truthfulness which vies with nature itself; the whole executed entirely from wood blocks.

The portraits produced by this artist, of which he has published several, are admirable in every respect. If I refer to one especially, it is not for the purpose of comparison, where all are excellent, but because I happen to possess a copy of the finished picture, and also an impression from the aquatint plate, with one or two subsequent printings. The portrait is that of Robert Moffatt, the father-in-law of David Livingstone, an eloquent and devoted Missionary of the London Missionary Society, who has spent upwards of forty years in Africa, and is still, in a green old age, pursuing his self-denying labours among the tribes of that arid land. Many of the artist's pictures are of a missionary character, and most of his portraits are of Missionaries. The interest of these he has greatly enhanced by skilfully introducing in the backgrounds appropriate scenery, in the delineation of which he excels. Thus, the portrait of Moffatt contains a view near the Kuruman river, with a native parliament assembled, which one of the chiefs is supposed to be addressing. His two most elaborate works, and which may be considered the greatest, though certainly not the most pleasing, are, the Queen's partaking of the Sacrament after her Coronation, and Her Majesty's Opening her First Parliament. Of one of these I am enabled

to state, and I have no doubt that it is true also of the other, that the subject was executed from a plate in mezzotint, and the colours from metal plates, not wood, printed at the type press. Twenty-six times did each sheet pass through the press, some of the plates only printing the colours most generally diffused through the picture, the greater number printing two colours at the same time, others three and four, so that about fifty colours or tints would be printed from the twenty-six blocks. On a former occasion I was kindly furnished by the artist with a set of impressions in detail, which I regret I am unable to submit now; but I purpose to exhibit the six printings from lithographic stones of one of the prints of "Views in Modern Liverpool," from which a correct idea of the process may be formed.\*

In addition to a variety of specimens of Mr. Baxter's Picture Printing, some recent volumes are also submitted, the embellishments of which are entirely produced from wood blocks at the type press or printing machine. One of the most beautiful of these is a small volume, entitled "Odes and Sonnets illustrated." The Illustrations are by Birkett Foster, printed in three tints, in one of which the text also is printed. It has a number of exquisitely delicate initial letters,

\* The following works of early printers, in the supposed order of their production, were also exhibited:—1. A Head of the Saviour, by Businck, in two colours, with the whites stopped out. Date, 1625. 2. Neptune, by Goltzius, from three blocks. 3. Nude Figures, in deadly strife, by the same artist, and from three blocks. 4. An Aged Man with Crucifix, from two blocks, the whites stopped out. Date, 1637. 5. Figure, with Tablet, by Guido Reni, from two blocks, the whites stopped out. 6. Jove expelling the Giants, by the same artist. This large print is in four sheets, printed from three blocks, the whites being stopped out. Date, 1647. 7. Aged Man with Crucifix, after Paulo Ferranti, by Kirkall. Printed from two blocks, with the whites stopped out. Date, betwixt 1722 and 1724. 8. Phœbus in the Chariot of the Sun, by Skippe, from three blocks, and the whites stopped out. 9. A Holy Family, after Perino dell Vaga, by Kirkall. From two blocks, the white stopped out. Date, 1724. 10. Martyrdom of St. Peter, date, 1738 to 1742; 11. Murder of the Innocents, date, 1739; 12. Raising of Lazarus, date, 1744; 13. Finding of Moses, date, 1751: all the four after Titian, by Jackson, and each from three blocks, with the whites stopped out. 14. Subject unknown, printed from four blocks, supposed to be by Jackson.

and head and tail pieces, by the engravers, the Brothers Dalzell, who appear also to have printed the volume. It is a charming specimen of typography.

Another volume, of greater pretensions, and involving greater difficulties in the production of it than the one last mentioned, is "A Chronicle of England, B. C. 55—A. D. 1485. Written and illustrated by James Doyle." It is a quarto volume of nearly five hundred pages, beautifully printed from modernised founts of the revived old-faced type, and embellished with eighty-one cuts, printed with the text throughout the volume. The artist being the author of the work, he has so arranged his literary matter as to place each illustration in the centre of a page. The mode of printing the work appears to have been this: the pages to contain the cuts, and those at the back of them, have been left out in the progress of the work, and the remainder of the volume printed without them. They have then been so arranged as to be printed by themselves, four or eight pages at once, and the embellishments on one side only of the sheet. On the completion of the entire work the respective pages are collated, the illustrated parts introduced in their proper places, and the volume bound by a method adapted to books of prints or works of single leaves. The author states that in the *Illustrations* his object "has been rather to express with clearness the action of the various scenes described than to give a series of attractive pictures"; and that "whatever might contribute to the truthfulness of the representations,—costume, architecture, local scenery, and other accessories, and even personal portraiture, so far as authorities existed,—has been carefully studied." The chronicle appears to have been undertaken during the author's youth, with a view to pictorial illustration, but having attracted attention as it approached to completion, and been honoured with approval and commendation by his Royal Highness the late Prince Consort, the author

undertook not only to revise, but to rewrite the entire of the text, with a view to its publication. "With the copying of his works," the author remarks, "an artist is seldom quite satisfied, even when he is himself the manipulator. But considering the greater difficulty of the engraver in this case,—the difficulty of copying by block printing the tints of original drawings,—the author feels bound to acknowledge with thanks the creditable manner in which Mr. Evans has performed his part of the task." The work could not indeed have been produced without the aid of modern improvements in the machinery and materials employed, and the combination of artist and typographer in the same individual. I am indebted to the publishers of this work, Messrs. Longman & Co., for the loose specimens now submitted.

The subject of Picture Printing by Chromo-lithography, which has of late years made rapid advances towards perfection, is reserved for a second Paper.

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## SEVENTH ORDINARY MEETING,

ROYAL INSTITUTION, January 23rd, 1865,

J. A. PICTON, F.S.A., Esq., PRESIDENT, in the Chair.

Several new members having been admitted, the CHAIRMAN announced that Mr. MOORE, curator of the Museum, was prevented by indisposition from being present, but that he had been making experiments with the ova of salmon; he had succeeded in hatching the ova, and the development of the fry was now taking place very satisfactorily. The ova could be inspected microscopically by any gentleman interested in that subject, by applying at the Museum, William Brown Street.

The following paper was then read:—

## CLASSICAL STUDIES:

THEIR TRUE POSITION AND VALUE IN EDUCATION.

BY THE REV. JOSHUA JONES, M.A.,

HEAD MASTER OF THE LIVERPOOL INSTITUTE.

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No educational question has been more keenly debated than that of the position which the Classics ought to occupy in our scholastic curriculum. By some it has been held that they should be the exclusive, or almost the exclusive, instruments of intellectual education; while others have entertained the opinion that they should have no place among the ordinary subjects of study. Between these two extreme opinions lie others, modified in various degrees according to the points of view, intellectual tastes, and varying circumstances of the condition of life, or state of mind and feeling, of those who have held them. From the time of Locke until the present day this question has formed a battleground upon which rival educational factions have fought, both eager for the strife, and, as is generally the case in all controversies, too often heedless of the cause of truth, and caring for little else except victory over their opponents.

It may seem to some a superfluous task to attempt to say anything further upon a subject about which so much has already been said, and consequently to advance anything new is so difficult. It appears to us, however, that it has been too generally treated in the one-sided spirit of the advocate

or the partisan, and that writers have hitherto for the most part written upon it exclusively from the one point of view which they may have happened to adopt. It is the purpose of this paper rather to take a review of the whole question in all its aspects, to consider the arguments, and compare what has been said on both sides, to modify objections and qualify assertions; and though we cannot hope to bring forward, in a matter which has been so often and keenly discussed, much that is altogether novel, yet we do hope to be able to present the whole subject in a new form, and to shed a somewhat clearer light upon it. We may add that the subject is particularly pressed upon our attention at the present time by the circumstance that Her Majesty's Public School Commissioners have, in their report recently published, recommended that the Classics should still be retained as the leading subject of instruction and the educational basis in the Public Schools of England; and it is therefore just now an interesting and useful matter for inquiry whether this recommendation, after a due consideration of the facts of the case, and of the arguments *pro* and *con.*, be a wise and judicious one or not.

It is not difficult to account for the high position which the Classics have so long occupied in our system of education. At the revival of learning in the sixteenth century there was no literature worthy of the name, except that of Greece and Rome. The middle ages had produced a few great intellects; but they had expended their energies for the most part on theological, or philosophical, subtleties, calculated indeed to exercise and develop the logical powers of the mind, but of little value, either in themselves or for the purpose of general intellectual discipline. There had been a conflict between human reason and ecclesiastical authority; the latter had fixed certain limits beyond which intellectual inquiry might

not go; and the former, active and struggling, but yet constrained by outward force to obey, had expended its energies on every minute point within the narrow sphere assigned to it. The mind of man has perhaps but rarely manifested such intense power and acuteness as it exhibited in the works of some of the great schoolmen, *e.g.*, Anselm and Thomas Aquinas; and but rarely, perhaps, has it ever produced results of so little value to the intellectual progress of mankind. Scholasticism, then, having supplied no general literature, the classical writers of Greece and Rome were the only authors suitable for general study, when the human mind began to emancipate itself from the fetters in which it had been so long bound. Again, Latin was at the time, and had been for centuries, the language of the Church, and of the schools of law and physic; so far from being a dead language, it was the vernacular of the churchman and of the learned; and it had thus established a sway from which it could not easily be displaced. It must also be remembered that at the period spoken of, and for some time after, classical subjects would have formed natural and interesting materials of thought and conversation to the educated, from the entire absence of those numerous and absorbing topics which the vast increase of knowledge, and the wide-spread diffusion of information, scientific, literary, political, and general, and the brilliant and extensive literature of modern times, supply to us in our age. Then further, it must be borne in mind that contemporaneous with the revival of learning was the foundation in our own country of many of the great seminaries of learning, which naturally adopted the classical languages and literatures as the then only general subjects of study worthy of pursuit. Thus it happened that the Classics got exclusive possession of the educational field; they formed the only unprofessional studies of the great seats of learning; they became the sole media through which professional instruction

was conveyed; they were fostered by scholastic endowments devoted to, and often founded for, their exclusive pursuit, in virtue of the principle, inherent in all endowments, of perpetuating that for the support of which they have been originally bestowed, or subsequently applied; they were the only studies with which the majority of the learned were acquainted, and consequently they were the only ones which they were disposed, or indeed able, to teach. And so they were propagated from generation to generation of students; they had the advantage of possession, and in time, too, the prestige which the tradition of long-continued pursuit, and all the associations and prejudices connected therewith, never fail to give—a prestige which inclines people to acquiesce even in that of which they do not quite approve; they had enlisted on their sides the best minds of each age, and the ardent feelings of able and zealous votaries; and it is not a matter of wonder that what had thus been the great study of the men of any one generation, and of their fathers and forefathers for many previous ones, should not at any time be dethroned from its position but after a hard and desperate struggle.

But while it is easy to account for the commanding position which classical studies have so long held in our educational system, the real question for us to decide is, how far that position is at the present time tenable. For it must be remembered that the circumstances of our age are very different from those of the sixteenth century. Then the Classics contained the only philosophy, history, poetry, and oratory worthy of the name; but now that philosophy is in many respects superseded by the deeper and truer philosophy which the enlarged speculations and wider experience of modern times have produced; that history is, if not altogether supplanted, yet rendered less valuable by reason of

the far wider range of facts, differing often in kind from those of the classical records, which modern history unfolds; and that poetry and oratory, if unsurpassed, can still be equalled, or nearly so, by the productions of modern authors. The point for our decision, then, is—whether, in the present condition of society, and the existing state of knowledge, classical studies ought to fill the exclusive and exalted position in education which they have hitherto done; and if not, what place, if any, they ought to be permitted to occupy. This is the question which has been so long and keenly debated, and to the solution of which we hope, in the present paper, to contribute something.

Before proceeding to discuss the proposed subject, we shall find it convenient for our purpose to fix our ideas upon two preliminary points.

First, then, it will be useful for us to determine the proper object of education, because this is a point which lies at the foundation of our present inquiry, and will subsequently help us in the investigation of one of the most common objections to classical studies. This matter has formed the subject of an earnest controversy between those, on the one hand, who advocate the training and development of the faculties as the aim and end of education, and those, on the other hand, who maintain that education should rather have as its object professional training, or the imparting of knowledge which can be directly turned to account in the business of after life. Now we may take it as a fundamental principle, that the object of general education is not so much to impart information, as to call into exercise, and develop, and discipline faculties; not so much to store with knowledge, as to awaken the desire, and supply the power, of acquiring knowledge; not to afford special training for particular pursuits in life, but to furnish general culture; not to train a man for his

future calling; but to make him fit for any calling, by giving him the power of taking up any subject that presents itself, comprehending its principles, and mastering its details,—by making his intellect broad, clear, vigorous, and active—by imparting to him a sound and accurate judgment, able to decide aright the various questions which occur in business or ordinary life;—in short, by educating and training those powers and habits of mind which enable a man in his social and business capacity to deal successfully with his fellow-men, and to exert a wholesome and useful influence on all within his sphere of action. To confine education, then, within the limits afforded by the imparting of the preparatory knowledge, or training, necessary for a profession, or business, is grievously to narrow its limits, and to impair the prospect of its ultimately bringing forth the desired fruit. For, we must remember, a man has other duties to perform besides those of his profession, trade, or calling; he has to be the ruler and counsellor of a home circle, to whom wife and children and domestics will look for advice and direction; he has to meet his fellow-creatures in social intercourse; he has perhaps to take some part in political, or civic, affairs; and for all these duties, domestic, social, and political, his education ought to fit him, as well as for his profession, or trade. Now it is obvious that so wide a culture as that of which we have been speaking, which has to influence the whole man in all his capacities, faculties, and feelings, cannot be effected by the mere acquisition of knowledge, as knowledge; no attainable amount of knowledge can enable him to grasp all the subjects, and grapple successfully with all the difficulties, which meet him in his ordinary life; nothing short of the vigorous and healthy action of all his faculties, as far as may be, will stand him in good stead in the great world-battle in which every true man has to engage. General culture, then, is the best preparation for a man's special work in life,

whatever that work may be, and should therefore be the primary object aimed at in his education.

We must be careful, however, to guard against any misapprehension in this matter; though it be true that the imparting of knowledge for its own sake is not the primary object of education, yet it must be remembered that education must be based on knowledge, and cannot be carried on without it; intellectual grasp and acuteness can only be attained by exercising the faculties in the acquisition, the contemplation, and the comparison of the various branches of human learning; education is not instruction indeed, but without instruction education is impossible.

The second preliminary point upon which it seems desirable to say something is the distinction between the different kinds of education. Now there are three kinds of education—1st, Primary; 2nd, Secondary; 3rd, the Higher.

1st. Primary Education consists in the imparting of the mere elements of learning, or rather of those branches of knowledge which are indispensable for every one in civilised life, or which are necessary for the subsequent acquisition of all knowledge, I mean—Reading, Writing, and Arithmetic. Under proper methods of teaching these elements, some amount of intellectual discipline may be imparted; but that discipline is not very considerable in amount, nor is it of a very high quality. This, however, is all the mental culture attainable by the great mass of our population, who are forced at an early age to forego all systematic education, and engage in hard manual toil for the sustenance of life. 2nd. Secondary Education is that of the vast majority of our middle classes, who are enabled to stay longer at school than our working population, say until their fourteenth, fifteenth, or sixteenth year, and have therefore the opportunity of receiving a more thorough mental discipline, and acquiring a higher

intellectual culture. They have time and opportunity for the pursuit of many of the higher branches of study, and of those which are the most efficacious for the training and cultivation of the mind; and the great object in educating them, after first of all securing their acquisition of those elements of knowledge which are necessary, or eminently useful, for the successful carrying on of the ordinary business of men in their position of life, should be to educe and discipline the various powers of their minds. 3rd. The Higher Education is that of those who have the means, opportunity, and desire of prolonging their studies up to the period of early manhood. Its object is the complete and harmonious development, and the calling forth into healthful, vigorous action, of all the mental faculties—in short, the general cultivation of the whole intelligence; and this is to be effected by the study of the higher, more refining, and more recondite branches of knowledge.

Leaving out of sight Primary Education, as not connected with our present subject of discussion, we have to consider only the Secondary and the Higher. We assume, then, as essential conditions, first, that in both, the branches of study which appertain specially to Primary Education have been secured; next, that in both, so much extra information has been imparted as is necessary, or useful, for a man who has to occupy a position above that of the mechanic, or day-labourer, and earn his living in any other way than by the work of his hands; and we assert that afterwards, in both alike, the object in view should be mental discipline and culture,—the only difference between the two being, that in Secondary Education this discipline and culture can only be carried on to a certain point, and must stop at a much lower level than the one attainable in the Higher Education. The difference then between the Secondary and Higher Education is one rather of degree, than of kind; the instruments used in the

one must be, with certain modifications and with some exceptions, pretty much the same as those used in the other ; the main distinction being that in the one they may be somewhat inferior in quality, as they have to do less accurate work, and cannot be used long enough to bring their work to that degree of perfection, which they are able to attain in the other. The conclusion at which we have arrived, and which concerns immediately our present purpose, is, that in the education of both the middle and upper classes of society the same subjects of study and the same course of instruction should, with certain modifications and under certain limitations, be adopted ; the leading exception being, that in the case of those who have the opportunity of pursuing their studies to a more advanced age, some subjects which are unsuitable for immature minds, or less developed faculties, may be added, while those which are being pursued in common by all, can by them be studied more deeply, widely, and thoroughly.

So, then, taking into account intellectual education only—for it is with this alone we are at present concerned—we shall have to consider what subject, or subjects, of study are best calculated to educe and supply healthful exercise to the various mental faculties, and to secure the harmonious development and perfect culture of the mind of man. No doubt that, if the human intellect were sufficiently vigorous and capacious to comprehend and retain it, this would be best effected by the study of the whole cycle of human knowledge ; but as the acquisition of all that can be known by man is plainly impossible, even to the highest and most vigorous intellect, and we have to form an educational system which will suit minds of average grasp and power, it is quite plain that we must make a selection from among the various branches of human learning ; and while we take into our course as many of these as can be fairly acquired by the

student, not as a mere possession of the memory, but as part of his mental furniture, and in such a way as to expand and invigorate his mental powers, we must lay chief stress upon those which are most likely to promote the object which, in education, we have in view.

Now, the subject which first presses its claims for selection upon our attention is that of Language. Language is the expression of thought, and if not actually coextensive with it, yet it is the only medium by which thought can be embodied in a definite form in our own minds, and by which it can be conveyed to others. In studying language, then, we are to a considerable extent contemplating those mental processes of which it is the expression; in investigating its laws, we are investigating at the same time in no small degree the laws of thought; and therefore it is that Grammar may be regarded as to use the words of Her Majesty's Public School Commissioners (*Report*, p, 28), "the logic of common speech." There must be a mutual action and reaction always going on between the inward process and its outward exponent; what calls forth and disciplines our faculty of language must also develop and train in no small degree our faculties of thought; vigour and clearness of verbal expression must be the counterpart of a certain force and lucidity of mind, corresponding in kind, if not coextensive in degree. Thus it is clear, from *a priori* considerations, that the study of language, in some form or other, is of essential importance as an intellectual discipline; and it follows, as a natural corollary, that the more perfect the language studied, the more perfect will be the discipline resulting therefrom.

When we speak of Language as a subject of study, we cannot exclude from our idea the subject matter which it conveys; the thought conveyed, as well as the mode of conveying it, the "matter," as well as the "form," must

come under consideration. With language, then, literature must ever be closely allied; for, though we may in idea dwell more sometimes on the one, and sometimes on the other, yet in fact they are indissolubly connected. And the study of literature commends itself to our notice independently, on its own merits, as "the study of the intellectual and moral world we live in" (*Report of Public School Commissioners*, p. 28), and therefore suitable for the culture of the intellectual and moral beings who inhabit that world.

We have arrived, then, at this point in our inquiry;—language and literature seem to have a primary claim for a leading position among our subjects of study. We shall have hereafter to examine more fully how far this claim is tenable, by a comparison between the classical languages and literatures and other leading branches of learning, in respect of their educational value. We say the classical languages and literatures, because we shall show that, whereas we cannot possibly study all, or even any considerable number of languages, and their accompanying literatures, but must make a selection from among them of those most suitable for the discipline and culture of the mind, these are plainly entitled to this preeminence.

Now in whatever we may say in favour of the Classics occupying a prominent place in our educational course, we must carefully guard against being supposed to suggest that they ought to hold that exclusive position therein which they for so many generations have maintained. We shall not attempt for one moment to defend the untenable opinion, which has been fostered by the system so long, and even still to a considerable extent pursued in our public schools, that they are the only subjects suitable for mental discipline. On the contrary, it will be at once acknowledged that the languages and literatures of Greece and Rome form col-

lectively but one among many subjects suitable for the development and training of the mind of man. The only point proposed for discussion is,—whether they are the best adapted instruments for this purpose; whether they ought to occupy in our educational system the central position around which all other subjects should be arranged; whether, in other words, the place which these other subjects ought to take be one of equality with, or one (as Her Majesty's Public School Commissioners recommend) of subordination to, the Classics, as the foundation of the educational superstructure. Mr. Gladstone puts the matter at once on a right issue, when, in his letter to one of the Commissioners, he requires that the question whether "the classical training is the proper basis of a liberal education" should receive "a distinct affirmative, or a substantial negative," and expresses a wish that "the relation of pure science, natural science, modern languages, modern history, and the rest to the old classical training ought to be founded on a principle;" denying, at the same time, on his part, "their right to a parallel or equal position," and maintaining that "their true position is ancillary, and, as ancillary, it ought to be limited and restrained without scruple, as much as a regard to the paramount matter of education may dictate."—(*Report of Public School Commissioners*, vol. ii. pp. 42, 48.)

Whether it may be desirable, indeed, to have a principal subject of study at all is a matter which may at first sight admit of considerable doubt. It cannot be denied that true mental culture is the result of the blending together of many studies, each filling its own proper position, and each harmonising with every other. But it must be remembered that, for the purpose of effecting this harmonious blending, there should be some central study around which all should be gathered, and with reference to which each one should be

placed, instead of all being left to pursue, as it were, their own ways, and follow erratic orbits—a course likely to lead to intellectual chaos and confusion, rather than to a harmonious composition and action of the intellectual elements. And further, it would appear that, in order to bring out the mental powers in their full vigour and development, they ought, in consequence of their limited nature and capacity, to be exercised in a limited sphere—a sphere not so narrow indeed as to impede their full expansion and free action, and yet not so wide as to render their energies aimless and discursive. And this seems to indicate the desirableness of selecting some one leading branch of study to which all others should be subordinated.

This point, then, having been ascertained, the question immediately arises, Ought the Classics to be this principal subject, which is to form the centre of our educational course? It must be at once admitted that classical studies cannot discipline and expand all our mental faculties, and therefore that they can only effect a part of our mental culture; yet, if it can be shown that they train a larger number of faculties in a more effective way, and that they are, in short, more potent instruments of culture than any other class of studies; if it can be ascertained that they form a real centre, about which a large number of branches of learning can naturally be arranged, their right to fill the leading, central position spoken of will have been satisfactorily established.

The course of our inquiry, then, has brought us now to the consideration of the influence of the study of the Classics in the exercise, expansion, and cultivation of the faculties of the intellect.

(1.) The study of the Classics exercises and strengthens the *memory*. The learning of grammatical paradigms and

rules,—the act of remembering words and phrases,—the learning by rote passages of authors,—the constant necessity of bearing in mind a large mass of historical, antiquarian, mythological, and philological information, with a view to the right understanding and appreciation of the meaning of the classical writers (all of which are essential elements of good classical training), afford constant practice to this important faculty, and thereby invigorate and develop it.

(2.) It cultivates the *judgment*, by constantly exercising that faculty in the investigation of the appropriate meaning of words,—in the selection of the most exact methods of rendering sentences, by giving each word and phrase and particle its full force and interpretation,—in the examination of difficulties,—in the comparison of rules with their exemplifications, and of passages with their parallel passages from the same or other authors; for all this requires discrimination and decision, which are essentially acts of the judgment.

(3.) It educates the *analytical* faculty, by necessitating on the part of the student the tracing up of words to their roots,—the division of compound words into their component elements,—and the analysis of sentences, and those, too, sentences unusually complicated and involved, with many clauses, whose connection with, and dependence on, one another are not at once obvious, and in which the words, which in sense are consecutive, are often widely distant from one another in position.

(4.) It develops the *reason*. "Correct syntax is," as it has been well said, "nothing but a correct process of reasoning." Syntax consists in the arrangement of words and their inflections in such a way as to be correspondent with the operation of the reasoning faculty within, and therefore the study of syntax must be a discipline of that faculty. Then, again, the student of a language has constantly to be

tracing out the connecting links of sentences and paragraphs, all of which are counterparts of a ratiocinative process in the mind of the author whose work is being studied; and he has to resolve philological principles into the conclusions, which from time to time he needs, deducible therefrom. Add to this, that the classical authors supply us in history, oratory, and philosophy, with some of the most perfect specimens of reasoning which any literature can produce; and it will be seen in how great a degree classical studies tend to call out and expand the reason.

(5.) It educates the *taste*, through the instrumentality of translation and composition, which involve the constant necessity of carefully considering how the idiom of the classical languages may be best expressed by that of our own, and, conversely, how idiomatic English may be best turned into idiomatic Greek or Latin; the task of determining how to represent all the nice distinctions which exist in the words and inflections of one language, without loss of force or meaning in the words and inflections of another—a task of especial difficulty, and therefore calling for the exercise of nicer discrimination and more refined taste, where the classical languages have to be turned into our own, or *vice versa*, because of their great difference from our own language in point of structure and mode of expression; and lastly, in the case of verse composition, the necessity of deciding how to clothe the ideas and language of modern poetry in the most appropriate forms which the poetry of Greece or Rome can suggest or supply.

(6.) It exercises and cultivates the *imagination*, because classical literature contains some of the most perfect works of imagination which the world can produce; and the length of the time which, in consequence of the difficulty of the languages, must necessarily be spent over each passage of these works for the understanding of its construction and

meaning, affords the student a better opportunity of entering into and appreciating its imagery or sentiment, than if it were hurried over in a mere cursory reading.

(7.) It gives precision to, and cultivates the faculty of, *language*. The careful study of the complex and yet perfectly constructed sentences of the best Greek and Latin authors, and the habit of turning those sentences into good idiomatic English, which shall fully express as far as possible the most minute shade of difference in the meaning of the original, are perhaps the best possible exercises which the student can anywhere find, in the art of discerning the exact force of words and phrases, and of clothing ideas in appropriate symbols, wherein consists the perfection of the operation of the faculty of language.

Such is the efficacy of classical studies regarded as a discipline of the mental faculties.

Let us now view the Classics as a central subject, and examine whether they can fairly be regarded as a natural centre, around which a considerable number of other branches of learning can be easily and without undue force aggregated. What are the subjects, then, which an efficient classical teacher can connect, and to some extent teach, together with his own special subject?

(1.) First, in teaching the grammar of the classical languages to beginners, if he endeavour to impart, not a mere rote-acquaintance with declensions and conjugations, but a sound and accurate knowledge of the *accidence*—a knowledge based indeed upon the paradigms contained in the text-book, and acquired by the memory, but extended and illustrated by his own oral teaching; if he be careful to mark all the leading inflections, contrasting them with the corresponding grammatical forms of their own or of any other language, or languages, known to his pupils, and illustrating by appro-

priate examples the points to which he is calling their attention; he will be teaching principles and facts common to the etymology of all languages, imparting much valuable instruction about the grammar of those particular languages to the analogies of which he is directing notice, and thus be clearing away many difficulties which impede the student in the direct study of them, and help him in the acquisition of them, or indeed of any others which at any time he may have occasion to learn. Similarly, in explaining and illustrating the rules of syntax to more advanced pupils, by pursuing the same method of comparison between the syntactical rules of Greek and Latin, and the corresponding ones in English, or in any other modern language they may be learning, while he is imparting an accurate knowledge of the construction of Latin and Greek sentences, he is also supplying a considerable amount of information upon the principles of construction of language in general, and upon their practical exemplifications in his own, or some other language with which his pupils are concerned. And when, in the reading of a Greek or Latin author, he calls attention to those inflections and syntactical rules as they are practically exhibited, and by parsing and analysis impresses them upon the minds of the students, he has a further and an ever-recurring opportunity of doing much in the same direction. Thus with the teaching of Latin and Greek grammar (whether from the text-book, or practically in the reading of an author), the teaching of English, or any other grammar, acquaintance with which is desirable for the learner, and the imparting of the leading principles of universal grammar, may be readily associated.

(2.) Again, in the translation of Greek and Latin authors into English, by avoiding the absurd and injurious practice, so common in schools, of what is technically called "construing" (a practice which by accustoming the student to a distorted caricature of his own tongue, with an utter neglect of its

own proper idioms, impairs his power of using it aright), and by requiring his pupils to render each sentence in good, readable English, while at the same time he insists upon an exact interpretation of every inflection, word, and clause, he is supplying the best possible exercise in English composition. Add to this that the Classics afford abundant suitable topics, upon which the student may be required to reproduce in his own words what he has learnt from his teacher, together with such additional ideas as his own reflection or reading may furnish; and it will be seen that classical instruction naturally fosters that most important branch of education, composition in our own mother tongue. Classical studies tend also in another way to help the student in the acquisition of a thorough mastery of his own language; because, in the practice of Latin and Greek composition, he learns many of its characteristic peculiarities, has his attention especially directed to its idioms, and is constantly occupied in the discovery, and the accurate reproduction in different language, of the exact force and meaning of its words and modes of expression. Thus, necessarily, is the art of composition in the vernacular imparted with the teaching of the classical languages.

(3.) But, besides the influence which classical studies thus have in promoting the more exact knowledge of our own and other tongues, they can also be used as the occasion for arousing an interest in many other branches of learning, and be made, as it were, the basis upon which the superstructure of knowledge in those branches may be easily and surely built. Thus, any geographical allusion in the text of an author may be used by the teacher as the starting point from which he may convey, and by the student as a centre around which he may gather, much information about the past and present political or local divisions, physical or general features, trade and productions, of the country or locality referred to;

and in this way the student may acquire a considerable knowledge of commercial, political, and physical geography, both ancient and modern. By seizing in a similar manner upon the occasion afforded by any biographical or historical allusion, explaining its meaning and reference, adding information where it may be necessary, and comparing, where comparison may be possible and appropriate, events of national or personal history recorded, or referred to, in the text, the classical teacher may not only awaken a taste for, and inculcate the principles of, historical and biographical research, but also teach a great deal about the history of other countries, and the biography of other men. Then, again, any reference to manners and laws, customs and usages, civil, military, or religious, would afford a natural ground for drawing a comparison between them and those of other countries and times in general, and of our own country and age in particular; and thus give an occasion for supplying much interesting antiquarian knowledge, and much valuable information about the condition of society, laws, customs, and modes of government which prevail among ourselves, or other nations, in our own times.

(4.) Further, by referring, wherever opportunity offers itself to parallel passages in other authors—comparing them with those in the classical writers which he wishes to illustrate, and occasionally criticising, pointing out their respective merits and defects—the classical teacher is calling attention to, awakening an interest in, and conveying some knowledge about general literature, both ancient and modern, and inculcating the first principles of literary criticism.

Thus, independently of the knowledge of the facts, arguments, and ideas conveyed in the classical writings themselves, in the course of classical instruction much knowledge about languages generally, our own language in particular, history, geography, antiquities, and indeed almost every subject

which comes within the scope of a literary education, may incidentally be introduced as naturally suggested by the main subject. And therefore it follows, that in any educational system in which the Classics occupy a place, these subjects would, in virtue of a natural connection, be associated with them as direct branches of instruction. Add to this, that in Logic, Moral, and Metaphysical Philosophy, the Classics furnish models perhaps unsurpassed by modern writers, certainly better suited than any other to form the basis of a philosophical culture. The conclusion, then, to which we are forced by these considerations is, that classical studies form a natural centre around which a considerable number of the branches of instruction, necessary or desirable in a liberal education, are readily congregated.

So, then, it would appear that classical studies are extensively efficacious in the discipline of the mental faculties, and are fitted to occupy a central position in our educational system.

But it may be, as it has been frequently, urged that the same advantages appertain in an equal, or in a greater, degree to the study of our own, or at all events some other modern language, *e. g.* French or German; and that other branches of study, *e. g.* Mathematics, Natural Science, or even, as it has been gravely suggested, History, are to be regarded as equally, or more, efficacious, and as having a similar, or greater, claim to the position of pre-eminence. We shall now, therefore, proceed to compare the Classics with the above-mentioned subjects in respect of their relative educational value.

I. First, we shall institute a comparison between the study of our own and the classical languages.

Now, in doing so, we grant, at the very outset, that it is an indispensable part of a youth's education that he be

thoroughly instructed in the theory, and made expert in the practical use, of his own mother tongue. That a boy, who has gone through a sufficiently prolonged educational course, should be ignorant of the grammar of his own language, deficient in its orthography, and destitute of the power of writing pure grammatical English, is altogether inexcusable. Instruction, then, in the English language forms a necessary adjunct of any system of training; time must be—as doubtless with proper arrangements it may be—found for the acquisition of this essential branch of knowledge; and any higher culture would be dearly purchased at the expense of ignorance in this respect. Further, we are ready also to admit that the study of the English language may be made a useful instrument of mental discipline; and, indeed, that in those cases, so common and almost universal among the lower grades of the middle and the lower classes of our population, where, in consequence of their too early removal from school, no other language can be mastered with sufficient accuracy and to a sufficient extent to exercise any appreciable disciplinary effect, it is perhaps the only medium through which that training, which the study of languages alone can give, can be effected.

But when we have granted thus much, we must, to enable us to decide the point at issue, take into account the following considerations:—

(1.) To confine our language-studies to the vernacular is to narrow our range of thought and expression. “In learning Greek and Latin as boys,” says Dr. Max Müller (*Survey of Languages*, p. 2.), “we are learning more than a new language, we are acquiring an entirely novel system of thought. The mind has to receive a grammatical training, and to be broken, so to say, to modes of thought and speech unknown to us from our own language.”

(2.) Again, it is very difficult to arrive at a correct insight into the nature of language, its laws, forms, and analogies,

and in a general way to attain to any great power or exactness in the use even of our own language, without acquiring in addition to it some other one as well. For our mother tongue is so identified with our current modes of thought and expression, we use it with such facility, and with the exertion of so small an amount of reflection upon the meaning and force of the words and the structure of the sentences which we utter, that we fail to obtain from its study that knowledge of the principles of language and grammatical forms generally, and that force and accuracy in its own use, which we get from the acquisition of a language learnt only by prolonged and laborious effort. And this absence of effort in the use of the vernacular seriously impairs, in other respects as well as in this, the value of its study regarded as a mental discipline.

(8.) Our own language would further appear to be inferior to the classical languages for the purposes of education for the following reason :—it is singularly simple in the structure of its sentences, and in the arrangement of its words, while they are most varied in the collocation of their words, and most involved in the formation of their sentences ; and hence, to arrive at the meaning of a passage in a classical author requires a much greater exertion of the reflective and analytical faculties, and consequently involves a proportionately higher and more vigorous intellectual training.

(4.) Again, the English language, beautiful and expressive as it is, is not as perfect in its grammatical structure and forms as the languages of Greece and Rome, and, accordingly, cannot afford so good a specimen for the language studies of the student as they do. For example, it conveys by a cumbersome array of little words what they convey by a change of inflection ; and the abundant use of inflections in a language not only makes it more terse and forcible in itself, but also renders it possible to arrange words in sentences in such a way as to express ideas in the clearest and most

striking manner; while a deficiency of inflections often renders it necessary, for the sake of making the meaning intelligible, to place the words so as to represent the ideas much less appropriately and forcibly. The inflection at once shows the proper position of a word as regards the sense, wherever it may happen to be placed in a sentence; and thus, in Greek and Latin, each idea can be arranged according to its relative importance, and where its expression will be most striking to the mind, and we may add most euphonious to the ear; whereas, in English, a certain fixed order of words and clauses must be for the most part observed, or the sentence would become mere unintelligible jargon.

(5.) Nor must it be forgotten that the classical languages lie at the foundation, and enter largely into the structure, of our own language. Many of our words are derived directly from them, and their meaning cannot be rightly appreciated without some classical attainments. "If," says the Edinburgh Reviewer (July, 1864), "the knowledge of Greek and Latin among our upper classes were lost, it [our language] would become (as it unfortunately is to women, and to the mass of people already) a strange collection of inexpressive symbols." It is not then perhaps too much to say that an acquaintance with Latin and Greek is almost indispensable for a precise and correct knowledge of our own language; at all events we may say, with Her Majesty's Public School Commissioners, that "the study of the classical languages is, or rather may be made, an instrument of the highest value for the purpose" of acquiring "a command of pure grammatical English."—(*Report*, p. 33.)

(6.) Lastly, it may be urged that some classical knowledge is of great value in helping the English student to acquire the humble but important accomplishment of correct spelling; because, in the case of words of Greek or Latin origin, one possessed of this knowledge knows, from his acquaintance

with the original languages whence they are derived, how they ought to be spelt.

For all these reasons, we conclude that English is not fitted to take the place of Latin and Greek in our education.

II. But the question arises, If our own language will not answer the required purpose, and it be necessary to learn another one as well, why not choose, in preference to Latin and Greek, one or more of the modern languages, *e. g.*, French or German, or both? for these are the ones the claims of which have been especially urged.

The advocates of this view allege in defence of it the following assertions and arguments. Modern languages are as suitable for mental cultivation as the classical languages. Instruction in the principles, and training in the use, of language generally can be as well imparted through them as through Latin and Greek, to which they are not in themselves inferior. They, too, under the teaching of able men, can be made the vehicles of æsthetic culture and high philosophic discipline. They can be taught orally, as well as by the more laborious process of dictionary and grammar; and therefore, as well as through their being intrinsically less difficult, can be acquired more easily, thoroughly, and in a shorter time. They are more useful when acquired, because of their being actually used by persons with whom, in the course of commerce, or in social intercourse, we frequently come into contact; and because they convey much valuable information on physical science, political economy, and other branches of knowledge, but imperfectly or erroneously understood by the writers of Greece and Rome. Thus, while they are indispensable to men in the higher walks of commercial life, to enable them to hold intercourse with foreign traders, they are equally so to men engaged in intellectual callings, because only through an acquaintance with these languages much

knowledge connected with their respective pursuits is accessible. They are the key to the ideas of cotemporary nations, and are—at least French and German are—the vehicles of literatures purer and more sublime than the classical; and these literatures contain much that is well fitted for the study, and calculated to rouse the sympathies, enlist the interests, and elevate the moral tone of youth, which the authors of Greece and Rome do not. They are, for these reasons, more attractive studies than the classical languages; and this is especially in their favour, because it is important that their studies should be attractive, not repulsive, to the young. Finally, as regards French and German, they are most valuable for the better understanding of our own language, because a large portion of it is derived from French and Teutonic sources. And on these grounds, it is maintained, the modern languages, and more particularly French and German, are preferable subjects of study to the classical,—at all events for those boys who are not intended for professions, and therefore not likely to require any knowledge of the Classics in their future life.

Such are some of the leading arguments advanced by those who advocate the use of the modern, *versus* the classical languages. To all of them perhaps we must allow a certain, and to some of them very considerable, weight; at all events they prove indubitably that modern languages ought to occupy an important position in a liberal education. But, on the other side of the question, the following arguments must be taken into consideration.

(1.) The very fact that the modern languages can be so easily acquired, the very circumstance of their being living languages, and therefore capable of being learnt orally by a mere exercise of memory, without the laborious process by which alone a dead language can be mastered, makes them less suitable and efficient instruments of intellectual discipline;

for intellectual development and culture are the results of intellectual effort, and, if you diminish the effort, you proportionately impede that development, and impair that culture.

(2.) On the other hand, the fact that the classical are "dead" languages, at the present time unused, and therefore unprogressive; that, consequently, we are able to study them in every stage of their progress, from a comparatively imperfect state to their highest point of perfection, and through their subsequent decline; that therefore there can be no difficulty in selecting from them the finest specimens of style, where the language is found in the greatest perfection (a matter most difficult of decision in the case of any living language, which is ever changing, whether improving or deteriorating not being at any given time ascertainable)—renders them more serviceable models for the study of language.

(8.) Then, again, it must be borne in mind that Greek and Latin are in themselves more perfect languages, more logically accurate in the expression of ideas, with a more regular grammatical structure, and with grammatical details more easily traceable to general laws; and that, consequently, to adopt the conclusion of the Quarterly Review (July, 1864, p. 21), "Latin," to which we may add Greek in perhaps a greater degree, "though not well taught and less well remembered, leaves behind it more knowledge of general grammar and etymology than the study of any modern language can convey."

(4.) To this we may add that they afford a standard of the principles of language and of grammar common to the whole civilised world. Now it is manifest that, in the study of philology, it is important that there should be some common basis of proceeding, and some standard of reference agreed upon by all. It would be plainly inconvenient that each nation should take for its standard its own or some other

modern tongue—*e.g.*, that England should take French, Germany English, France German, or Italy any one of the three, or some other language; scholars could not thus compare their labours, and the variation in the point of view would probably produce hopeless discord as to the principles which are the ultimate object of research. Nor could it be expected that all modern nations would combine to elevate any one of their languages into the position of the one standard for them all. But Latin and Greek, being remote from national jealousies and the rivalries of modern life, standing out in the distant past the common heritage of all, to which all are equally entitled, and all are equally, or nearly so, indebted, form a ground of study open to every civilised man, from which the fundamental principles of all language can be educed, and upon which the philologists of every nation can work together and compare the results of their labours.

(5.) And as they afford the most perfect specimens of language, so also they supply the finest literary models in poetry, history, and philosophy—models which have served as examples of thought and composition to all subsequent ages, and after the fashion of which all modern literature has taken its form. And, in addition to this fact, observing also that classical, as compared with modern literature, which is practically speaking boundless in extent, affords a limited area for study, containing a few recognised models, upon which all can agree, whereas, to make a selection from modern authors for the same purpose is almost impossible,—we conclude that the literatures of Greece and Rome, no less than their languages, are more suitable for educational purposes than those of modern nations.

(6.) Nor must this fact be forgotten. Modern literary productions abound in classical allusions, and in thoughts and sentiments either directly copied from the Greek and Latin Classics, or framed on the model of similar passages

in them. In evidence of this we may refer to the constant classical allusions in the speeches of our great statesmen—allusions which convey no meaning except to the classical scholar. And even in cases where this direct reference is not discernible, the Classics have exercised so vast an influence on modern thought, and so many of our current ideas are traceable to that influence, that much of our modern literature cannot be thoroughly understood and appreciated without some classical knowledge.

(7.) Another argument of considerable weight may be based on the circumstance that, in consequence of their remoteness from our own times, the classical authors are free from any reference to the controversies, religious, political, and social, which agitate ourselves, and with which it is exceedingly undesirable to disturb the minds of the young before they are thoroughly competent to think for themselves, to discriminate between what is true and what is false, and to settle their own principles on the conviction of disciplined reason, and under the influence of sound and well trained judgment.

(8.) Further, it must be noted that the classical languages are, or at least Latin is, as it were, the key to many of the most important modern languages, and that the acquisition of the former makes the acquisition, whenever necessary or desirable, of the latter a comparatively easy task—a fact the converse of which is by no means true. Upon this point we quote the opinion of Dr. Max Müller, who says (*Survey of Languages*, p. 16)—“In Latin we have the key to Spanish, Portuguese, French, Italian. Any one who desires to learn the modern Romance languages—Italian, Spanish, and French—will find that he actually has to spend less time if he learns Latin first, than if he had studied each of these modern dialects separately, and without this foreknowledge of their common parent.”

(9.) And, as a last argument—an argument, however, which is applicable only to our own times, and may ultimately cease to be of any force—the Classics have so long held possession of our leading seminaries of learning, that they, with Mathematics, have secured a monopoly of the most highly trained and efficient masters, so that at present, and for some time to come, it would be difficult to procure a sufficient supply of competent masters of the modern languages.

For all these reasons, we conclude that the modern languages, important as is the place which they ought to occupy in education, cannot be regarded as having the same educational value as those of Greece and Rome.

But if no other language and literature can rival those of Greece and Rome in educational value, it may be urged that they are surpassed, or at all events equalled, in this respect by some other subject—*e. g.*, Mathematics, Natural Science, or History, for these are the branches of study whose claims have been especially, and with most force, insisted upon.

III. Are we, then, to regard Mathematics as better entitled than the Classics to occupy the central position spoken of?

Now, in attempting to give an answer to this question, we admit at once the very great importance of Mathematics; for without a knowledge of it some of the most important laws of the universe cannot be understood and explained; it forms one of the most potent instruments in promoting the progress of the natural sciences; and it is most valuable in the pursuit of some callings—*e. g.*, that of engineering in all its branches—which conduce to the material comforts and advantages of life. Thus the practical utility of mathematical studies is undoubted.

But it must be borne in mind that we have now to regard

the matter in an educational aspect; and that, in the beginning of this inquiry, we enunciated it as a preliminary principle that the main object of education was not to impart knowledge which could be turned to direct account in the pursuits of after life, so much as to develop and invigorate the mental faculties, and generally to humanise and expand the intellect.

From this point of view, however, it must be allowed that the study of Mathematics exercises a most salutary and important influence on the cultivation of the mind; for it tends to fix the attention, and therefore cures the fault of mental distraction; it imparts the power of dwelling upon abstract ideas; it cultivates the habits of giving a definite form to vague notions, of collecting scattered details into fixed formulæ, and afterwards applying those formulæ to the production of new results; and while it sharpens the faculties generally, it trains the mind in the practice of close and consecutive reasoning, and thereby, in a special way, cultivates the faculty of reason.

We cannot, however, forget that this discipline has been denied to accrue from mathematical studies by so great a thinker as the late Sir W. Hamilton, and has been considered by that eminent philosopher and mathematician, Dr. Whewell, to result from the study of Geometry only, that of Analysis being almost useless, if not actually injurious, for the proper development of the mind (*vid. Whewell on Liberal Education*, p. 56).

Nor must we suppose that the mental discipline which Mathematics effect can be accomplished through its instrumentality alone. Indeed, many have doubted whether Mathematics is the best subject for training and developing the reason, and whether it is not inferior to Classics in this respect. For it has been urged against it, and with a great amount of force, that it is concerned only with

number, quantity, and form, or the intuitions of time and space, and is thus limited to one sphere of existence, and therefore in no way applicable to the diversified phenomena of our intellectual life; and that, inasmuch as it is concerned with *necessary* matter, it incapacitates rather than trains the reason for dealing correctly with *contingent* matter, and so for forming accurate and sound conclusions in questions of common life, and of moral, political, philosophical, or religious truth, where absolute certainty is unattainable, and probability, of greater or less degree of certainty, alone can be arrived at. But classical studies, they argue, while they are free from these defects as being engaged with *contingent* matter, and concerned with most of the problems which occupy the attention of the intellect, are yet a most effective means of cultivating the reason; for the accurate syntax and complex structure of the classical languages require on the part of the student a great exercise of the logical powers, to enable him to comprehend the purport of the language used, to determine which he has to trace out the connection between clause and clause, and sentence and sentence, to weigh conflicting probabilities as to the exact meaning of words and phrases, to apply rules, and to form conclusions; and all this involves direct processes of syllogistic reasoning, rapidly and almost intuitively gone through, but no less real and valid on that account.

The fact upon which the foregoing argument is based seems to be by itself alone decisive of the question before us. Mathematics is concerned with a class of truths which have no relation to human affairs; it leads away the mind to a region of its own, quite remote from the sphere in which we live and think, and from our human interests and sympathies; whereas the study of the poets and orators, the historians and philosophers of classical antiquity, bring us into direct communion with human feelings and concerns, and the

ordinary affairs of individual and political life. For this reason it would appear that education should have rather a literary, than a mathematical, or purely scientific, basis.

The conclusion at which we arrive is, that while Mathematics is an essential supplement of a classical, or indeed of any kind of liberal education, yet that its proper position is an ancillary, and by no means that leading or central one which the Classics demand as their own.

IV. We next proceed to consider the claim which has been advanced on behalf of Natural Science, to fill the place from which, it is thought, the Classics ought to be dethroned.

The advocates of this claim urge in support of it, that the study of Natural Science must be preferable to that of language, on the broad principle that it is the study of things, rather than of words; that to study the latter before the former is indeed a reversal of Nature's order, according to which the observation of external nature precedes the use of language, and still more any intelligent comprehension of its forms and laws; that the acquisition in youth of a knowledge of external objects is of real use in the business of life, or at all events lays the foundation for profitable and interesting pastime in years to come; that many boys, who have not the slightest aptitude, or taste, for language and literature, may have great capability and inclination for the study of the facts of external nature; that information of this kind is conveyed more easily and readily, and therefore more efficiently to an indolent student, than any other can be; and that any education is narrow, defective, and incomplete, which does not include within its course instruction in some portion at least of that vast store of facts and principles which modern science unfolds to its votaries. Then, again, it is maintained that the study of Natural Science exercises the mental faculties, and affords a real mental discipline. Thus

Her Majesty's Public School Commissioners, in their Report (p. 32), say, "It quickens and cultivates directly the faculty of observation, which in very many persons lies almost dormant through life, the power of accurate and rapid generalisation, and the mental habit of method and arrangement; it accustoms young persons to trace the sequence of cause and effect; it familiarises them with a kind of reasoning which interests them, and which they can promptly comprehend; and it is perhaps the best corrective for that indolence which is the vice of half-awakened minds, and which shrinks from any exertion that is not, like an effort of memory, merely mechanical." And Mr. H. H. Vaughan, late Professor of Modern History in the University of Oxford, asserts that "the vital appropriation and application of" knowledge of the physical sciences "involve acts of memory, comprehension, comparison, imagination, deduction—the use of many and admirable faculties, the exercise of which is a discipline truly noble" (*Oxford Reform and Oxford Professors*, p. 26).

Now there is sufficient truth in all this, as we think, to shew, beyond the possibility of a reasonable doubt, that the study of Natural Science, so far from being, as one of the most distinguished of the Head Masters of our Public Schools maintains it to be, "worthless" for boys, is really valuable, not only for the sake of the information acquired, but also on account of its efficacy in cultivating and developing certain powers of the mind:—and it makes out a strong case for the right of this subject to occupy a recognised position in our education, establishing the dictum of the report on the Public Schools, that its exclusion from our education "is a plain defect and a great practical evil." (*Public Schools Commission Report*, p. 32.) It must, therefore, be admitted, that the too exclusive possession of the educational field by the Classics, —a possession the commencement of which dates from a time when the natural sciences were almost unknown, and

which was held by prescriptive right afterwards, notwithstanding their vast expansion in modern times—has kept those sciences too generally from occupying that position as branches of instruction which is rightfully due to them.

But here again we must call attention to the fact, that the question before us is, not whether they deserve a place, but whether they ought to occupy the principal, central place, in our system of education; and this question we must answer most decisively in the negative, both for the reasons already advanced in favour of the right of language and literature in general, and of those of Greece and Rome in particular, to this preeminence; and because we hold, that the study of language and literature, as the study of the intellectual and moral world, must be much higher than that of the physical world, a truth expressed in the hackneyed quotation—distorted indeed from its meaning as used by its author, but none the less appropriate on that account in its new application—“the proper study of mankind is man.”

Nor again must we forget that there is considerable force in the arguments of those who maintain that the mental discipline derivable from the study of Natural Science arises chiefly from the investigation and contemplation of its more advanced, and not from the study of its elementary, branches, with which alone for the most part education is concerned. The advocates of this view argue thus: the youthful mind is incapable of grasping the theories which are most disciplinary, and cannot get beyond the sensible facts of the subject, which exercise the observation and memory, and nothing more; the elementary knowledge, then, which can be conveyed to the young, is for the most part made up of individual facts, and therefore only trains the minds to observe and remember, and affords but little scope for the exercise of those reflective faculties, which may, no doubt, be called into play in the generalising of those facts into laws and principles.

The study of Natural Science, as concerned exclusively with the objects of the external world, would appear, indeed, in every case, to have a tendency to induce the neglect of the contemplation of the world within, and, therefore, of the cultivation of the reflective faculties; and at the same time, from the nature of the subject-matter with which it is engaged, it affords little, if any, scope for the exercise of the imagination, and none at all for that of the moral judgment, which is perhaps of all our faculties the most valuable for the business of life; in short, as occupied with the visible and tangible, it allows no opportunity for the development of those higher mental powers, which are employed upon the immaterial and unseen.

V. The claim of another subject, viz., History, or rather the history of the middle ages, to occupy the central position of our educational system, has been seriously urged, in a recent number of one of our leading Reviews (*Westminster Review*, July, 1864), and now demands our attention, not so much from its intrinsic importance, as because of the gravity with which it is urged.

The writer of the article in question asserts that from the history of the middle ages we can "learn best our relation to the past and to one another;" that "it has a claim upon our principal attention which is superior to any other;" that it will be "admitted without hesitation" that History "can form a real centre, about which can be arranged all else that will have to be taught beside it;" and that to "early modern history" all other history, language and literature, and even the physical sciences (which on this plan are to be "treated historically," and to "gain in importance" by being so handled), can naturally be subordinated. He further assumes that our present, *i. e.*, the classical, system of education does not attempt "the higher object of qualifying a man for citizen-

ship in a state which is itself an integral part of the commonwealth of Western Europe," and "leaves the judgment untrained on the highest social and political questions, and does not fit a man, but rather unfits him, to feel his position, and to discharge his duty, as an Englishman and an European;" while by the proposed system, on the other hand, the mind would be trained to "the habit of viewing everything in strict relation to the one subject of highest human interest—the progress of the human race."

Now, in reply to this two-fold assumption, we observe, in the first place, that even if it were true, we cannot regard the "qualifying a man for citizenship in a state of Western Europe," or the formation of "the habit of viewing everything in strict relation to the progress of the human race," as the primary object of intellectual education, which is, as we have before seen, to draw out, strengthen, and develop the mental faculties; and whatever best effects this is the most fitted to be the principal educational instrument, whether it "qualifies for citizenship," either in "Western Europe," or any other quarter of the globe, Asia, Africa, or America, or not,—whether it has any direct bearing upon "the progress of the human race," or not. The education of the individual is the primary object, that of the citizen a secondary and subordinate one; the latter cannot be well effected until the former has been well secured. And it may indeed be questioned, whether "the progress of the human race" be a matter of any, much less the "highest," interest to the young, or whether they can at all appreciate it; and even if they could, whether they would be best educated by "viewing everything in relation to" it: the idea itself is a somewhat abstract and shadowy one, ill calculated for the comprehension of youthful minds, and by no means such an important point of reference to the student as many others, for example, his future work in life, or his relation to his Creator, or his social relations to his fellow-men.

Then, again, with reference to the general question, we observe that history is but a part—an important one indeed, but still only a part—of a language and literature training ; from no course of literary education indeed could it be excluded ; but to exalt it to a primary position is to exalt the part, which is necessarily subordinate, to a place of superiority over the whole.

And further, we may ask, If the history of the middle ages is to be the great central subject of study, what authors are to be studied? What mediæval historians are to fill the places of the great classical ones, Thucydides, Herodotus, and Xenophon, Tacitus, Livy, and Cæsar,—not to mention such other authors as Homer and Virgil, Sophocles and Horace, Cicero and Demosthenes? It would be difficult to find any suitable to educe the mental faculties of youth, or indeed at all comparable, in point of matter or style, to the great historians, and the other great writers, of Greece and Rome.

It must also be remembered that to the immature minds of the young, who have not yet the mental power, or the knowledge of life, to grasp its principles, history presents very little else than an assemblage of facts, the mastering of which is a mere exercise of memory, and nothing more ; and the cultivation of the power of acquiring historical facts, or even of classifying them as well, can hardly be regarded as the principal object of education.

Nor, again, can we allow the claim of a subject to pre-eminence, which, for its maintenance, requires that physical science should be treated “historically ;” physical science handled in such a way would soon cease to progress, and become a matter of history and nothing more ; so far from “gaining in importance” thereby, it would soon cease to have any importance at all ; thus studied, it could hardly be turned to any practical account in promoting the comfort, happiness,

or advancement of man; and those who are taught the subject on such principles may acquire some knowledge of the history of physical science indeed, but of the science itself, little, or rather no knowledge at all.

Lastly, as to the assertion that our present system does not qualify for forming a judgment on the highest social and political questions of the day, we should,—with the example before us of men trained on that system, who as politicians, statesmen, and social philosophers have by their labours made the social and political condition of our country superior on the whole to that of any other country in the world,—be disposed emphatically to deny. But whether this fact be recognised, or not, so the classical system be in other respects the best mental discipline, its claim to superiority is fairly established.

For, after all, this is the question,—Which is the best educational instrument? We have heard, no doubt, from the Reviewer all that can be said on behalf of the history of the middle ages; we have already advanced in this essay arguments in favour of the right of language and literature, particularly of the languages and literatures of Greece and Rome, to fill the leading place in education; which line of argument is the most weighty and conclusive can, we conceive, readily be decided.

We have thus at considerable length investigated the arguments which have been brought forward by their respective advocates, in support of the right of other leading branches of learning to occupy a high, or even a pre-eminent, position in our education; we have considered in each case what may be said on the other side; and we have thus been brought to the conclusion, on a survey of the whole matter, that while most, if not all, of the above-mentioned subjects should be included in any course of

liberal instruction, yet that no one of them is as efficient an instrument of intellectual training, or as fitted to occupy the centre of our educational system, as the Classics.

Besides the arguments which have been already brought forward in the preceding pages, there are others of considerable weight which next claim our attention.

(1.) The first of these is one, ably worked out by Dr. Whewell in his work on "Liberal Education." The Classics are an indispensable part of our education course, because they connect us with the intellectual efforts of past ages; they are stamped, as it were, upon the history of the civilised world, and their study preserves the traditions of moral and intellectual life; and true nobility of intellect consists in the ability to trace the descent of ideas. To omit the study of the Classics, then, is to cut us off from the experience of the intellectual world, to make it impossible for us to investigate the progress of the thought of civilised man, and to destroy what may not inaptly be called the aristocratic element of human knowledge.

(2.) A second argument is based upon the great influence which the Greek and Roman mind has exercised in moulding our modern civilisation. Mr. Gladstone (*Report of Public School Commissioners*, vol. 2, p. 43) says:—"The modern European civilisation from the middle ages downwards is the compound of two great factors, the Christian religion for the spirit of man, the Greek (and in a secondary degree the Roman) discipline for his mind and intellect": and he even goes so far as to maintain, that "the materials of what we call classical training were prepared, and we have a right to say were advisedly and providentially prepared, in order that it might become not a mere adjunct, but in mathematical phrase the complement of Christianity, in its application to the culture of the human being, as a being

formed both for this world and the world to come." And to the same effect, Mr. J. S. Mill observes (*Considerations on Representative Government*, p. 43)—"The Jews jointly with them [the Greeks] have been the starting point and main propelling agency of modern cultivation"—an observation endorsed by M. Guizot (*Meditations on Christianity*, p. 209)—"Modern civilisation is in effect derived from the Jews and from the Greeks. To the latter it is indebted for its human and intellectual, to the former for its Divine and moral, element." The civilised life of modern Europe generally is so impregnated by classical influences,—its human as apart from its Divine element is so entirely derived from classical sources,—that its nature and tendency cannot be rightly understood and duly estimated without an acquaintance with the mental productions, the civilisation, and the national life of Greece and Rome.

(3.) Closely allied with the preceding is a third argument. The classical system has so long prevailed,—the intellectual life of our upper classes has been so completely, and that of our middle classes to so great an extent, formed by it,—it is so intertwined with the ideas of the educated, with our modes of thinking, and the whole course of cultivated life among us,—that it could not be departed from without giving a great shock to our system of thought, and to our social culture. And though this consideration ought not to be allowed to outweigh other and graver ones, which may be urged against the pursuit of classical studies, yet it is enough to render it imperative, on the part of an opponent of them, to show very good reason why they should be abandoned, and to advance very cogent arguments in favour of those studies which he proposes to substitute in their stead.

(4.) Another argument is one, the force of which will be generally recognised. For those preparing for the learned professions, the work of legislation or of statesmanship, or

indeed any high intellectual calling, the knowledge of the classical languages is almost indispensable. In the profession of the Law, a knowledge of Latin is necessary for the perusal of old legal documents, and the study of some of the greatest works on Jurisprudence. In the Medical profession, without some classical attainments the student cannot avail himself of the ancient medical writers, *e. g.*, Hippocrates, Celsus, Galen; nor can he fully understand the meaning of the technical terms used in his art. In the profession of Theology, no man, who has not received a thorough classical training, can attain to any, except the lowest, standard of professional acquirements. For, first of all, without a knowledge of Greek, it is impossible to acquire an exact and competent knowledge of the writings of the New Testament. Again, all the works of the great Fathers of the Church, nearly all the early Christian writings, all the productions of mediæval theologians, and many of the greatest works of comparatively modern divines, are written in the languages of Greece or Rome, and are therefore as sealed books to all who are not classical scholars. Add to this, that an accurate acquaintance with the manners, customs, institutions, and literatures of Greece and Rome is indispensable for the understanding and explaining of many allusions in the New Testament, and other ancient theological writings; and for the tracing out the influence of Christianity upon the civilised races with which it first came into contact, and investigating the effect which through that influence it has exercised in modifying the elements of human society—reforming and renewing it. Nor is the utility of classical studies confined to the three learned professions. To the legislator and the statesman, a knowledge of the history, laws, and political institutions of Greece and Rome is almost essential, as a preparation for the discharge of their respective functions. For in the history of the States of Greece, and of the Republic and Empire of Rome, are to be discovered the

elements of every national institution, the principles of national life, examples of the origin and progress of every political change, and illustrations of almost every possible form of government. And as a practical illustration of the value of this learning to the statesman, we may refer to the well-known fact, that many of the most distinguished statesmen of our time have been men deeply versed in classical lore. The historian, the philosopher, and even the poet, cannot carry on their respective pursuits without frequently finding an acquaintance with the Classics most desirable for them; while the scientific man can hardly fail in many cases to recognise the value of some classical attainments, to enable him to understand the nomenclature, and in some instances to investigate the history and progress, of his science. This argument goes far to prove the absolute necessity of retaining the Classics in any system of liberal education.

(5.) A fifth argument is based on the intrinsic value of the literature of Greece and Rome. It has been truly said that that literature contains "some of the noblest poetry, the finest eloquence, the deepest philosophy, the wisest historical writing." (*H. M. Public School Commissioners' Report*, p. 28.) And indeed, without attempting to draw a comparison between the respective excellencies of classical and modern literature, no unprejudiced person can refuse to allow that the languages in which the New Testament is written, in which Homer and Virgil composed their poetry, Demosthenes and Cicero gave utterance to their orations, and Thucydides and Tacitus wrote their histories, are worthy of diligent study, for the sake of the literary treasures to which they are the key. To Greek this argument applies with special force. In it were composed the earliest specimens of epic and dramatic poetry, and perhaps the most perfect and elaborate productions of the drama, which we possess; in it were written histories, not only the oldest in point of antiquity, if we except the sacred

ones, which have been handed down to us, but also unsurpassed, perhaps unrivalled, by any of the histories of modern times; it was the language of the greatest orator which the world ever produced; in it wrote the masters of Logic, Metaphysics, Moral and Political Philosophy, to all succeeding generations,—men unexcelled by their pupils, with all the extra experience of two thousand years; in it were composed the inspired records of Christianity,—records which are the basis of the Christian faith, and the guide of the individual Christian in all that concerns his spiritual and eternal welfare.

Such is the train of reasoning by which the supremacy of the Classics in our educational course may be defended. Some of the arguments adduced may be applied, perhaps, on behalf of some other subject almost as appropriately, while others of them can be urged only in support of the Classics; some may be of greater, others of less weight; but their accumulative force is irresistible; at all events, until an equally strong case can be made out for some other branch of knowledge,—which, as it appears to us, has not yet been, nor is very likely ever to be, done.

We now proceed to examine the objections which have been made against the use of the Classics in education. These are many. Some have been already in the course of our argument cursorily referred to; of the remaining ones we can only select a few, which are most common, or most important.

(1.) A first objection is based upon moral considerations. Classical literature is, as it is alleged, at once pagan and impure; much of it is of a demoralising tendency, and calculated to debase rather than refine the mind and character of the student.

Now that this charge can be to some extent sustained, as

regards a portion of the surviving literature of Greece and Rome, may without hesitation be admitted, just as a similar accusation brought against some of our modern literature could not be controverted. And indeed we cannot but be conscious, that the fact of the works of Greek and Roman authors having been composed before the light of the Christian revelation enlightened the darkness of the human mind, and before the leaven of Christian principles interpenetrated and changed human society, must to some extent impair their educational value from a moral point of view.

We reply, however, first, that the objection is beside the question before us, which is, the value of the Classics as a means of educating the mind, and not as an instrument of moral culture. Still, we cannot for a moment deny that an immoral tendency, if it can be proved against any subject of study, is a fatal bar to its use in education; and therefore we rely rather upon the answer that the objection is only true in a very qualified sense, in fact that it is substantially untrue; because the truth of the case is, that the classical writings contain much that is morally beautiful, indeed all that is best and noblest in thought and sentiment in the natural mind of man; that far more frequently than otherwise, vice is in them denounced as vice, and satirised, or condemned, accordingly; and that, even in those mythological fables, to which perhaps the objection chiefly applies, that which is vicious lies only on the surface, while on a deeper investigation they are seen to embody ideas, often beautiful and profound in character, which an intelligent teacher may readily discern, and impress upon the student's attention; and that, in short, their general tendency, so far from being demoralising and debasing, is rather elevating and refining. And then again it must be remembered, that the fact of classical literature belonging to a bygone age, remote from our own, makes anything of an immoral tendency in it far

less injurious than what is of a similar character in the literature of our own times ; because it does not wear to our senses the same aspect of reality, and is not invested with the same personal interest to us.

(2.) Another objection, and perhaps the most common and frequently repeated of all, is, that classical studies are of no, or at all events of but little, practical utility,—at least for the great majority of schoolboys, who are not destined for the learned professions, but intend to engage in commercial pursuits. And when it is objected that certain subjects of study are “not useful,” what is meant is, that they have no direct bearing upon the student’s future business, or calling ; and an invidious contrast is drawn between them, and such subjects as arithmetic, writing, or our own and modern languages, which are of direct utility in the occupations of after life.

Now in meeting this objection we, in the first place, protest against the assumption therein involved, that everything in education is to be regulated by the dictates of a vulgar utilitarianism. Surely there are other objects besides mere utility, such as the attainment of truth, the elevation of the moral nature, the culture of the intellect, which ought also to be kept in view. Thus intellectual cultivation is valuable as its own end, and has its own use quite independently of any subsequent results it may have upon our calling in life ; in the words of a great thinker and writer, “health is a good in itself, though nothing came of it :” and so “the culture of the intellect is a good in itself, and its own end.” (*Newman’s Discourses on University Education*, p. 236.) And further it may be remarked, that this objection is based upon a narrow and false idea of what is “the useful” in education. Knowledge has a two-fold value, its value as knowledge, and its value as intellectual discipline ; and viewed as a preparation for life, it is often more important in the latter respect than it is in the former.

So then a subject of study may be eminently "useful" in the highest, widest sense, without being of any direct use in the avocations of after-life. If it has served to enlarge, sharpen, invigorate, or polish any one of the mental powers ; if it has imparted vigour and accuracy of reasoning ; if it has served to form a sound and correct judgment ; if it has trained the mind to a habit of close attention ; if it has enabled a man to take larger, clearer, more accurate views of any subject which may be presented to him in the ordinary business of his every-day life ; if it has enabled him to express his thoughts with more clearness and power ; if, in short, it has in any way made him wiser, better, more able, or more refined ; then has that branch of knowledge been of the greatest "use" to him, though he has never had occasion to use the smallest iota thereof in the transactions of his business, or in the pursuits of his life. That knowledge, then, which may seem to a man profitless as regards its direct use, may, if he could only discern and estimate truly its results, have been to him indirectly of the greatest possible utility.

(8.) Thirdly, it is urged as an objection against classical studies, that they are appreciated only by a few ; that boys generally do not see the use or the meaning of them ; that most leave school knowing little, or nothing, of Greek and Latin, and that of the rest the larger number quickly give up the study of these languages altogether ; and the conclusion drawn is, that studies so little appreciated, so distasteful, and so barren in results, are unfitted to occupy the attention of the young. And in support of this conclusion it is argued, with much plausibility, that it is absurd to suppose a disagreeable study to be more invigorating than one which is pleasant ; that, on the contrary, the greater the interest taken in a subject, the more inclination must the student have to exercise his faculties upon it, and the more the faculties are exercised, the more are they expanded and invigorated ; and

that indeed a certain degree of interest in a subject is the motive power indicated by nature to support the will in the effort of sustained attention.

This objection may fairly be met by the following observations:—First, the fact of classical studies not being appreciated by the young is no proof of their unsuitability for them; on the contrary, the circumstance of their absolutely requiring exertion of mind and close attention, which renders them unpopular, is just what makes them most valuable. Every one practically versed in education knows that boys and young men, for the most part, like best what gives them mentally least trouble, and requires the least exercise of their intellectual faculties. And it is for the opponents of classical studies to show, that there are studies, equally invigorating, which would be generally more acceptable; and indeed that any studies, requiring laborious effort, are likely to be agreeable to the majority of young people. And then, as regards boys not seeing the use of classical studies, it is not to be expected that they should do so; boys have to learn, suffer, and do much, the meaning and utility of which they cannot possibly at the time comprehend;—this is a necessary condition of a state of pupilage. And lastly we reply, that if but little has been learned, the learning of that little may have been of the greatest value in training the mind for its future work; and that, even if these studies have been quickly and altogether abandoned, yet valuable results remain in the mental culture which they have left behind.

(4.) A fourth objection assumes that, since the classical system of education was introduced before modern science and literature took their rise, therefore it cannot possibly be the best; because, first, it cannot correspond with the spirit, or meet the wants, of the age; and secondly, it takes no cognisance of the vast mass of new facts, principles, and ideas which have been added to our stores of knowledge in modern

times. And in particular it is said that, even if the poetry and eloquence of the ancients preserve their preeminence, yet their philosophy was neither the deepest, nor the most true; and their history lacks the enlarged views, and enlightened wisdom, with which centuries of additional experience have furnished mankind.

Now if this be urged merely to prove that the Classics ought not to have exclusive possession of our educational field, we have nothing to say in reply; that the great discoveries of modern science, the great facts of modern history, and the great truths and ideas of modern literature ought not to be ignored in the education of our youth, is a matter upon which no one in our day can entertain a reasonable doubt.

But if more than this be meant, we reply, first, by calling attention to what we have already said with reference to the claim which the Classics rightfully make to occupy the central position in our education: and, secondly, by referring to the fact, before alluded to, that the very multiplicity of the objects presented to our attention by modern literature and science, and the vast extent of the field of study thus opened to us, seriously diminish their educational value, because there is the greatest difficulty in making a selection of what is most valuable and appropriate for the purpose of education, and there is no probability of educationists arriving at an agreement upon this point; whereas the Classics present a limited number of authors, many of them in their kind models of thought and style; and it is most desirable that we should have a common system, or at all events a common basis of our system, of education; while it is equally desirable, considering the limited nature of our faculties, and the shortness of the time into which the work of education must be compressed, that that basis should not be of too wide an extent.

(5). A fifth objection is based upon the union in the

classical system of the Greek and Latin languages. Why, it is asked, study Greek and Latin together? They are different in themselves, and are not necessarily connected. Why not make one of them the basis of our higher education, and not the two?

Now the validity of this objection must be conceded so far as this, that where education is cut short at the age at which boys intended for business usually leave school, one only of these languages should be studied. And as to which of the two has the first claim upon the student's attention, is a question easily decided. For, notwithstanding the great superiority of the language and literature of Greece to those of Rome, when we consider, that the Latin tongue enters so largely into the composition of our own and other modern languages; that it has done so much to mould our modern civilisation, not only directly through its literature, but also indirectly through the influence which Latin modes of thought and expression had upon the ecclesiastical system and dogmas, and upon the social and political life, of the middle ages; that its history is the basis of our modern history, and its jurisprudence of our modern systems of law; that for so many ages it formed the common idiom of the professions and of the learned, and that, therefore, without it the thoughts of many generations are inaccessible;—when we consider all this, we can hardly doubt that Latin should have the preference. In the case, then, of a large number of boys, those, for example, who are the objects of secondary, or middle-class, education, we allow that Latin only ought to be studied.

But in the case of those whose education is extended through a longer period, we maintain that it is desirable to learn another language as well, both for the sake of imparting to the mind a broader and more comprehensive view of things in general, and of the principles of language

in particular. And Greek has, undoubtedly, after Latin, the next claim upon our attention, because in clearness and power, in philosophical precision of expression and grammatical structure, it is the most perfect of all languages; because it is from Greece that Rome borrowed her literature; because the productions of the Greek mind are the primary source of the literature, and a fundamental element in the civilisation, of modern Europe; because, in short, Greece, though its language and literature, is the parent of intellectual efforts in poetry, eloquence, history, and philosophy, and thus possesses, as it were, the empire of the intellectual world, in all generations and throughout all time.

It would be tedious to go through and answer in detail all the various objections which have been raised against classical studies. Thus it has been said, that the early study of the Classics destroys the taste; that classical literature has exercised a baneful influence on art, and on philosophy; and that the best poets and other writers of the present day owe nothing to the Classics. Now we may observe, in passing, with reference to the last mentioned assertion, that our higher education hitherto has been so thoroughly, and almost exclusively, classical,—and that the intellectual atmosphere in which we live, and therefore every educated mind, is impregnated to such an extent with classical ideas and principles,—as to render it quite impossible to estimate how much our writers owe to the old Classics of Greece and Rome. For the rest, we must content ourselves with observing, that such charges are easily made against any studies, but that, before they can carry with them any weight, they must be established by a wide and searching induction of particulars—a task in this case most difficult of accomplishment, as we venture to believe; and that, until they have been in this way satisfactorily proved, any attempt to deal with them would be futile.

With the question of the value of a classical education generally, there has often been mixed up another question quite distinct from it—viz., the value of the particular system of classical instruction pursued in this country; and arguments and objections, which properly belong only to the latter, have often been imported into the former.

Sidney Smith, who was one of the earliest writers in the present century to call attention to this subject, drew a clear distinction between these inquiries, pronouncing an opinion as unfavourable in the latter case as it was favourable in the former, to the study of the Classics. In his essay on "Professional Education," he observes:—"That vast advantages may be derived from classical learning, there can be no doubt. The advantages which are derived from classical learning by the English mode of teaching, involve another, and a very different question; and we will venture to say, that there never was a more complete instance in any country of such extravagant and overacted attachment to any branch of knowledge, as that which obtains in this country with regard to classical knowledge." He then goes on to complain of the exclusive position the Classics occupied in our course of instruction; of the exaggerated estimate in which they were held, as proved by the conceit, which attached the title of scholar to one versed in classical learning alone; of the misfortune of scholars in England having come to regard the instrument rather than the end, *e.g.* not what may be read in Greek, but Greek itself; of the extraordinary perfection aimed at; and particularly of the time and pains spent in verse-making. In short, he maintains that the then existing system of classical instruction, "cultivated the imagination a great deal too much, and other habits of mind a great deal too little;" and that it was "not making the most of life" to "constitute such an

extensive, and such a minute classical erudition, an indispensable article in education."

To these objections it has been added by other writers, that in our country the Classics are taught too early and too indiscriminately; that boys would learn them better, if they commenced them at a later period of their school course; that other subjects, particularly those which, like the natural sciences, appeal to the outward senses, are the best for the earlier stages of education; that the custom of learning by rote certain forms of words, without any insight into their meaning, and without going through any process of intellectual digestion, is damaging even to the industrious student, while the parrot-repetition and sing-song knowledge of the idle and careless is destructive of the intellectual powers; and, to sum up all in one general statement, that our existing system of classical instruction is unsound in itself, and injurious in its results.

Now, while we trust that many of these objections apply to a state of things which has to some extent passed away, or at all events is passing away, yet we cannot deny that they carry with them considerable truth and force, although we do not admit them in their entirety. That our system of classical education is not what it ought to be, no one who reads the report of Her Majesty's Commissioners on Public Schools with an unprejudiced mind can entertain any reasonable doubt; if it is to be tested by tangible results, it cannot be regarded as satisfactory. Making this general admission at the outset, let us proceed to state how far our own opinion coincides with the expressions of condemnation just referred to.

We have already granted that the Classics have no right to the exclusive position in education which they have so long held; that, however great may be their educational value, there are other subjects of study very efficacious for the

exercise and development of the mind ; that, though classical studies can do much, yet they cannot afford a complete mental discipline and culture. We are ready to allow, also, that in our country, in consequence of the exaggerated estimate formed of the Classics, other important branches of knowledge have been proportionately undervalued ; and we are disposed to join in the protest of Sidney Smith against the unfairness of applying the title of "scholar" to those only who are acquainted with Greek and Latin.

Nor can it be denied, that the subject-matter of the classical authors has been too often neglected in the great attention paid to their language, and that thus much of the advantage to be derived from their study has been lost. Still, after what we have said of the importance of the study of language, as language, we cannot regard this as an evil unmixed with good ; indeed, the evil would probably have been greater, though of an opposite character, if, in paying more attention to the subject-matter, the critical and exact investigation of the language had been less cared for.

With the condemnation of verse-making, unless in exceptional cases, we also concur. Proficiency in the art can but rarely be attained, and then only by long and assiduous labour, and, after all, is little more than the result of a mental trick, which is almost valueless for any purpose of discipline, or for any practical end whatever ; it does not tend in any appreciable degree to a more accurate acquaintance with the language, which is far better attained by prose composition, and for which we believe prose composition to be essentially necessary. The most that can be said for the practice is, that it teaches the elegancies of scholarship, somewhat refines the taste, and calls into exercise a certain kind of intellectual ingenuity ; but then it does so at a fearful expenditure of labour and time, which could be more profitably employed in cultivating other faculties, and acquiring other knowledge ;

and, after all, it is a question whether an equal amount of refinement, and a higher kind of ingenuity, may not be attained by other less laborious and more profitable exercises. If verse-making is to be retained at all, it certainly should be confined to those who, from their superior scholarship or natural taste, are likely to excel in that branch of composition.

The question whether the Classics would be better learnt, if their study were commenced by the student at a later age than is at present usual, is one which probably admits of debate, and certainly cannot be satisfactorily decided except by a careful and extensive induction from experience; and no experiments on a sufficiently large scale have yet been made to enable us to form a positive opinion upon the matter. It is asserted, indeed, in a recent number of the *Westminster Review* (July, 1864), that "if composition were wholly cut out of the curriculum, and boys were allowed to begin their Classics at a later age than they do now, and after a proper training, which they do not now receive, in English and French, or German, they might acquire in two years, or, in cases of exceptional stupidity, in three years, as much knowledge of Greek and Latin as they do now after ten or twelve;" and, in support of this statement, it is urged that in the London Ladies' Colleges "young ladies, who leave school at sixteen or seventeen, do learn Latin fairly" in that time, studying simultaneously "a variety of other subjects." Now, that they do learn something of the subject is no doubt true, but how much—one would be glad to know. Although, however, we have no sufficient experience to guide us, we may suggest a few points, of much use in directing us towards a tolerably accurate decision on the proposed question. It is, we believe, a recognised fact, that students who take to classical studies after they have passed the ordinary school-boy age rarely attain to much proficiency in them, while, if they apply

themselves to Mathematics, or many other branches of learning, they often reach a high, or even the highest, level of attainments: to this rule the exceptions are very few; and it would seem to indicate that classical studies, if any useful amount of progress is to be made in them, must be introduced at an early stage of the educational course; it is not, however, decisive as to the point, whether the Classics are best mastered when commenced by school-boys in their tenth or their fourteenth year. It is undoubtedly true, that studies, which involve external observation, are most attractive to the mind of a child, and that, therefore, in them children at an early age are most likely to make rapid progress; still it is highly probable that the mind ought early to be directed to some extent, though not excessively, to the study of language, with a view, not so much to the acquiring a knowledge of the subject, as to the bending the faculties in the right direction, by way of preparation for the subsequent earnest and thorough pursuit of it. Thus young boys should, in our opinion, spend a small, but only a small, portion of their time on their Latin, their attention being chiefly devoted to other more suitable, or practically useful, subjects; this time may gradually be extended, as they progress in age and attainments. Nothing can be more indefensible than to devote, in the case of young boys, any considerable portion of their time to the Classics, when there are so many other branches of knowledge absolutely necessary for them to learn, in which they ought first to be well grounded, or which, at all events, they ought to be put in a fair way of acquiring in due course. To what has been already said upon this point we may add, from our own experience, that we have known, in one or two instances, boys who, commencing classical studies at a late period of their school-boy career, have yet made considerable progress in them; but they have been boys of remarkable ability, and did not

reach more than a respectable level of proficiency; and after all, it is questionable whether from these studies, entered upon thus late, they have derived any very valuable discipline of the mind: and again, it must be remembered that these instances are exceptional, and that in far the greater number of cases, when classics have been commenced late on in the school course, our experience has proved that but a very small amount of knowledge of them has been acquired. Still, to those disposed to venture on the experiment on a large scale, it is a matter at least worth a trial, whether the same, or even a greater, amount of classical proficiency may not be attained by commencing classical studies at a more advanced age; we can only say, that in our judgment the result would not be found to justify the practice.

Lastly, with reference to what has been said in condemnation of rote-teaching, we are disposed to acquiesce in the opinion of the *Edinburgh Reviewer* (July, 1864, p. 170), that "to repeat with unflinching accuracy the contents of the old Eton and Westminster Grammars, was an accomplishment, or rather a virtue, of which the value, intellectually speaking, was absolutely null." It cannot, indeed, be denied, that in the method of teaching the Classics formerly, and perhaps to a great extent still, prevalent among us, too great importance has been attached to this mere *memoriter* acquisition of paradigms and rules; and thus the memory has been too much cultivated, while other faculties have been neglected, and the general intelligence has been unawakened. It is, however, to be hoped that a more intelligent system of instruction is at all events beginning to prevail; for we cannot but confess that great improvement in this respect is at once practicable and desirable.

If we proceed to enquire into the remedies for the deficiencies of our system of classical instruction, the first, and by far the most important one, at once presents itself. The

truth is, that classical teachers, like all others, ought to be specially trained for their work; a young man may be an admirable classical scholar, and yet quite unfitted to impart classical instruction; and we believe that no really efficient method of teaching is likely to prevail, until the teacher has been first taught to teach, and so sent out thoroughly equipped and prepared for the work before him. The scholastic calling ought to be elevated into the rank of a profession, like that of the law, or medicine, requiring a definite course of preparatory professional training: we do not entrust matters which concern our bodily health, or the security of our property, to unskilled, untrained men; as little should we entrust the equally, or even more, important task of disciplining the minds and forming the characters of our children to men who have never undergone any special preparation for so difficult and momentous an employment. Our doctors and our lawyers receive professional training—so should also our schoolmasters; and not only our elementary ones, but still more those who undertake the education of the upper and middle classes of the country; for upon their fitness for their work, much more than upon that of the teachers of the lower orders, the well-being of the nation depends, inasmuch as it is the upper and middle classes who give the tone to, and impress their form upon, the national character and life.

A second remedy, which we venture to recommend, is the improvement of our existing text-books. For, though these have been greatly improved, yet there are comparatively few, among the very many published, which can be regarded as thoroughly satisfactory; indeed, the composition of a really good text-book requires on the part of its author an amount of theoretical knowledge, and practical experience of a certain kind, but rarely found in combination in one individual; and perhaps it is not in the nature of things possible, that the views and ideas of any one author, and his modes of expounding those

views and ideas, can in any subject whatever solve the intellectual difficulties, and meet the intellectual wants, of the student. Our Latin Grammars are not what they should be; the old Eton Latin Grammar is by no means a satisfactory book; and though many Latin Grammars of a very superior character have been of late years compiled, yet there is room for the introduction of a better one still. As regards Greek Grammars we are more fortunate; for in Wordsworth's "*Græcæ Grammaticæ Rudimenta*," we possess a really serviceable school-book, at all events for some of our scholars; but unfortunately, for others it is marred by the fatal defect of its being written in Latin, and thus being in a great measure unintelligible, or rather only after the expenditure of much unnecessary time and pains intelligible, to the majority of school-boys, whose knowledge of Latin itself is but meagre. Then again, our text-books upon classical prose composition do not seem thoroughly to answer their purpose; thus, T. K. Arnold's Works, excellent as they are in many respects, fail to impart to any satisfactory extent the art of classical composition; indeed, it is wonderful how long a boy may study the first part of that author's work upon the subject, without acquiring in most cases any but the faintest idea how to write Latin prose. Again, but few annotated editions of the Classics are of much use to the school-boy; sometimes they are too critical, and quite beyond his grasp; and if they are less pretentious in their aim, they seldom contain the information most wanted by the youthful student. The Oxford annotated pocket Classics are useful as far as they go, but would be more so if the notes were more copious and frequent. On the other hand, such editions as those of Anthon err from assisting the student too much. In the matter of Lexicons and Dictionaries we are far better off; as Liddell and Scott's *Greek Lexicon*, and the extensive works edited by Dr. W. Smith, leave but little to be desired in the line which they take up. While we thus

express our opinion as to the desirability of a further improvement in our classical school-books, we gladly acknowledge how much has been already done in this direction by many able and distinguished scholars in our own time.

The foregoing appear to be the two most prominent suggestions for improving our classical education. Many other suggestions of great value on points of detail will occur to the practical educationist; but their investigation would require much more space than we can afford, at the end of this already lengthy paper.

The whole question, however, is one of pressing importance. For the classical system can no longer hold exclusive sway in our schools; with it the modern system must be combined; and the number of subjects thus required to be taught make far too great a demand upon the limited time and undeveloped faculties of the young; the mind is oppressed by the multiplicity of ideas presented to it, none of which are sufficiently mastered; and the result is that it becomes enfeebled and stunted, instead of being invigorated and developed. Thoroughness of knowledge, no matter in how limited a sphere, is an essential of true mental training; with it there is intellectual development, small it may be, but still development; without it there is none. The attempt to teach too many things is the great evil which educationists have at present to contend against,—an evil, which is marring the beneficial effects of our education, and will, unless countervailed, we fear, manifest itself fatally in the lowered tone and diminished vigour of the minds of the next generation. One way of averting this fatal defect alone presents itself, and that is, the introduction of some more speedy and effectual mode than that at present in vogue of teaching classics; for until this is done, “there is very little room,” as the *Quarterly Reviewer* (July, 1864, p. 204,) well says, “for any fresh studies”; to which he adds, “if the fresh studies

are pursued with no better method than the old, it matters little whether they are introduced or not." Unless this can be done, one thing seems certain, viz., that the days of the classical system are numbered ; it must wane and finally perish beneath the pressing exigencies of business and common life, which will always give to the opposing modern system great and ever increasing weight.

In conclusion we will briefly state a few of the practical results, to which we have been led by the foregoing considerations.

For the purpose of thorough mental training, and the culture of the higher intellectual faculties, the study of the Classics is indispensable ; or at all events no substitute for it, equally efficacious, has been, or, so far as we can see, is ever likely to be, found. In any system of education which aims at anything more than elementary instruction, or imparting the mechanical information necessary for engaging in ordinary commercial pursuits,—*i. e.* in any system of education above the lowest, the Classics have a right to occupy the central position, as the principal subject of study.

Yet classical studies manifestly cannot be forced upon all. For instance, they are, of course, out of the question in Primary education, for those who remain at school only long enough to acquire the bare elements of knowledge, Reading, Writing, and Arithmetic. Nor can they with any great advantage find a place in the lower kind of Secondary education, viz. that intended for those who from the exigencies of their position are obliged to go out at an early age (say about thirteen years old) to their trade, or business ; for they have not time to acquire, together with such information as is absolutely necessary to fit them for the mere routine performance of their future duties, a sufficient amount of classical knowledge to be of any practical value, as

a discipline, or otherwise, to them ; for them such an exact and critical knowledge, as is within their power to attain, of the English language, must be made to supply partially—for it can only do so partially—what the Classics effect for more fortunate students, who can prolong the period of their education. For the latter, who are, or ought to be, the recipients of the upper kind of Secondary, or of the Higher education, *i. e.* for those who are being educated in the true sense of the term, the study of Latin, and then, if time and the state of progress of the student permit, that of Greek superadded, cannot without injury be dispensed with.

The proportion of time which ought to be devoted to these studies varies. Those who will have to finish their general education at the age of fifteen or sixteen, *e. g.* those who are intended for commercial pursuits, or some of the professions, cannot in our opinion, consistently with the acquisition of other essential branches of knowledge, spend more than from one-sixth to one-fourth of their time, as a general rule, on the Classics ; for we must remember, that, notwithstanding the vast importance of general culture, it is not the only thing we have to aim at, and that its attainment must be more or less limited by the necessity which the student lies under, of acquiring to some extent specific training for his future calling in life. For those who are recipients of the Higher education, with a view to entering the learned professions, or engaging in literary or scientific pursuits, or occupying with dignity elevated positions in society, the apportionment made by the Royal Commissioners (*Public School Report*, p. 35,) of not less than four-eighths, nor more than five-eighths, of their time to the Classics, with History and Divinity, is probably a fair and reasonable one.

As regards the period of school-life at which classical studies should be commenced, we believe that those who are designed to pursue them at all should enter upon them at an early age, devoting, however, a smaller portion of their time

and attention to them at first than subsequently; the object in view being, as we have before observed, to early habituate them to the frame of mind required for carrying on effectually such studies, and so prepare them for their earnest pursuit at a later period.

Lastly, while we have no sympathy with the vulgar outcry against the Classics on the score of their inutility,—an outcry which we have shewn to arise from a complete misunderstanding of what “the useful” in education really is,—we are constrained to admit, that in our English educational system too much time has been hitherto devoted to them; that in consequence many important branches of study have been neglected; and that the result has been, that large numbers in successive generations of students have been, and are still being, turned out of our leading seminaries of learning, ignorant of what every educated man ought to know, and in fact not educated, in any true and sufficient sense of the term. For we must recal to recollection what has been before urged in this paper, that high intellectual culture, which is at once the aim and the result of all true education, consists in the harmonious development and action of all the intellectual faculties; and that this can be secured, not by an exclusive attention to any one subject, not by the study of language alone, or of mathematics alone, or of physical science alone, but by acquiring a knowledge of all these subjects,—more perhaps of one, and less of another, but a competent knowledge of them all,—the knowledge of one not existing independently of that of another, but all arranged and consolidated around a common centre of attainments, forming a fixed and certain possession of the mind. We must remember, in short, that the perfect education of man can only be obtained by an accurate and complete study of all the objects which fall within the sphere of the cognisance of man’s intelligence. This universality of knowledge, then, should be the ultimate

point of our educational aim and aspiration; though we may never forget that, in consequence of the finite nature of our faculties, and the limited extent of our existing opportunities, we cannot do more in the present stage of our being than approximate to this goal of perfection, which can be reached by us only in that state of existence, where we shall "know," not "in part" as now, but with a knowledge, universal in its range, and perfectly accurate in its grasp, "even as we are known."

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#### EIGHTH ORDINARY MEETING.

ROYAL INSTITUTION, MONDAY, 6th FEBRUARY, 1865.

REV. C. D. GINSBURG, V.P., in the Chair.

The following donations were received, and thanks voted to the donors:—"Proceedings of the Royal Society;" "Journal of the Franklin Institute," two numbers; "Journal of the Society of Arts," two numbers.

The following gentlemen were balloted for and duly elected members of the society:—Messrs. Walter Vernon, Thomas Holmes Vernon, John Newton, Douglas Hebson, and William Rowlandson, jun.

On the motion of the President, the thanks of the society were voted to the honorary secretary for his trouble in preparing a catalogue of the society's library, which is now ready.

MR. T. J. MOORE announced that several very interesting zoological collections from the west coast of Africa had recently been presented to the Derby Museum, viz., a collection of

birds, reptiles, fish, insects, &c., from Lagos, collected and presented by Mr. R. B. N. Walker, corresponding member of the Zoological Society of London; a specimen of the potto (*Pterodicticus potto*), and a series of fish from Bassompurah River, collected and presented by Mr. H. T. Ussher, Deputy-Assistant Commissary General at Lagos, through Mr. Walker; and a collection of dried fish, &c., and examples of three species of finches and their nests, from Bathurst, River Gambia, collected, most carefully labelled, and presented by Mr. J. Lewis Ingram, Queen's Advocate, Bathurst, received through the kind offices of Mr. Thomas Blisset, of South Castle-street. Mr. Moore exhibited the birds and nests from Mr. Ingram, and hoped to have the other collections in a condition to bring under the notice of the society before the close of the session. The specimens exhibited consisted of the following:—A male and female Rufous-necked weaver bird, *Ploceus textor*, Gmelin, and nest, somewhat bottle-shaped, formed of coarse grasses, and built on the fork of a bush; the local name of this bird at the Gambia is that of palm bird; nest and birds taken Dec. 19. A male and female crimson-eared Bengaly, *Estrela phænicotis*, Swainson, and nest, formed of a fine grass, and loose and open in construction; nest and birds taken Dec. 19. A male and female short-tailed crimson weaver, *Euplectes franciscanus* of Isert (*ignicolor* of Vieillot), and three nests; the Jolloff name of this species is *Coomba Ting-ting*, and one of these nests is labelled as follows:—“Nest of the male *Coomba Ting-ting*; he lives separately from the female bird, who has a nest of her own. The nest appears to be unfinished, but it is quite complete.” These nests are made of rather coarse grass externally, and lined with finer; the shape is a long oval, with the entrance at one side near the top, a few grasses being bound round the lower curve of the mouth to strengthen and distend it. One of the two nests of females is attached to two nearly parallel twigs at the

sides of the entrance, which thus look like two greatly prolonged door-posts; the two other nests have had their attachments removed. The birds were taken December 19. The nest of the male was taken November 7, those of the females November 7 and December 9; the last contains two eggs, of a uniform pale blue colour. The nest of the male is somewhat more slightly built than that of the female. These birds are well-known species, descriptions of which are given in Swainson's *Birds of Western Africa*, forming part of Jardine's *Naturalist's Library*, but descriptions only, Swainson having no information of their eggs or nests.

Mr. Moore also exhibited, on behalf of a member of the society, Mr. Robert E. Stewart, of Rodney Street, a very simple and most effectual method of ærating aquaria. Take an india-rubber enema, such as that invented by Mr. Alfred Higginson, plunge the sucking end beneath the surface of the water of the tank to be ærated, work vigorously with the hand holding the enlarged or compressible portion of the enema, and let the current of water that will thus be produced be directed back to the tank, and it will carry with it innumerable air bubbles of minute size, proportioned, in fact, to the delivery bore of the enema, which bore should be as fine as possible. Mr. Moore stated that the effect produced is precisely similar in kind to that obtained in a 400-gallon tank in the museum, into which small jets of water are forced by pumps attached to Duncan's patent water-meter, which is connected again by a water-pipe from the street main, thus obtaining very considerable self-acting power, sufficient, in fact, to carry down clouds of air bubbles, and set in gradual motion the water of several similar tanks of equal capacity. For smaller tanks, and for hand use, Mr. Stewart's plan promises to be all that can be desired.

The following Paper was then read:—

ON SOME GEOLOGICAL FEATURES OF THE  
COAST OF ABERDEENSHIRE,

WITH NOTICES OF THE OCCURRENCES OF CHALK FLINTS AND  
GREENSAND.

By WILLIAM FERGUSON, F.L.S., F.G.S.

The substance of the Paper I now submit to the Literary and Philosophical Society of Liverpool, I have on former occasions communicated to the Philosophical Society of Glasgow (11th April, 1849), and to the Geological Society (June 18, 1856), and notices of it have appeared in the publications of these societies, and in the *Philosophical Magazine* for 1850, vol. 37, p. 430. The fossils collected by me were examined in 1856 by Mr. J. W. Salter, of the Museum of Practical Geology, who was kind enough to describe for me the new species. Types of these fossils are deposited in Jermyn Street Museum; and the usual letter of thanks from the Privy Council for donations, emanating from the late Henry de la Beche, then at the head of that department, bears the addition, "The collection is a particularly valuable one."

Since I wrote first on this topic, it has been more or less alluded to by various writers, more particularly by the late Hugh Miller, in various of his papers read to the Physical Society of Edinburgh, and other published works, and by J. F. Jameson, of Ellon, in elaborate and accurate Papers on the modern epochs of Geology, as represented in Aberdeenshire. I have re-written my paper for this occasion, so as to present to you, as well as I am able, the question in its most recent aspects.

The general features of the district to which I purpose calling your attention are those usually exhibited where the

primary or crystalline rocks predominate, as the foundation rock. These rocks are covered with a thick coating of gravels and clays, making their appearance chiefly on the coast lines. We have, however, presented to us here and there some interesting geological occurrences, which we may call anomalies, or at least what appear anomalies at present, though greater light and a wider observation may yet show them to be occurrences in the natural order of events.

I shall attempt, in the first place, to present to you a general sketch of the features of the country, and then refer more minutely to the peculiarities I have alluded to, the principal of these being the occurrence of a deposit of chalk flints and greensand, with their characteristic fossils.

We shall start on a walking expedition at the mouth of the river Ythan, and keep the coast line, till we have passed round the whole of this north-eastern promontory, and reach the dividing line between the counties of Aberdeen and Banff.

Starting, then, from the mouth of the Ythan, and proceeding northwards, we find the coast line is very bold and precipitous, broken, however, here and there, by narrow creeks or broader bays. Our path lies along the upper margin of the cliffs, through the parish of Slains, for the first six miles. The average height of the rocks is from one hundred and seventy to two hundred feet, and they consist of gneiss and mica slate, with numerous veins of quartz; and at one part of the coast they are overlaid by limestone. On one of my own trips on one occasion, I approached this part of the coast at the village of Collieston, a hamlet of fishermen's cottages, where advantage has been taken of a ravine, which affords a comparatively easy access to the water. Part of the village is built on the water-edge, and part on the cliff two hundred feet above. A very deep deposit of dark

red clay covers the cliffs, curling over the rocks, if I may so express it, and presenting a steep grassy slope leading to the rocks themselves. In some places the clay comes down very close to the water, but there is always an outlier of rock shielding it from the action of the waves. In one spot I observed that the overflow of a small stream had washed out a chasm in the clay at least thirty or forty feet deep, showing that the deposit is of very considerable thickness.

Between this village of Collieston and the mouth of the Ythan lies the old parish of Forvie. For many years this tract of country, extending some three or four miles along the coast, has been covered with sand to a great depth. The remains of the church walls were at a recent date still traceable above the sand on the high lands near the shore. Tradition says the destruction was accomplished in a single night, and adds, that it was in consequence of a curse pronounced upon it. The lands belonged to a fair heiress who had declined the addresses of a bold suitor. Determined to carry his point, he tried to carry off the damsel, and so succeeded that neither he nor she were ever heard of more; but from the receding boat in which he bore her from the shore came the wild and weird-like strain —

The weight of a woman's malison  
Be ever on this land,  
And ne'er let the haughs of Forvie  
Bear aught but bent and sand.

And the haughs of Forvie do bear nothing but bent and sand to this day.

We pass the village of Collieston and keep on northwards, and find the same high precipitous coast line for several miles, but so indented by creeks and narrow tortuous ravines as to render the walk along the cliffs a very long one. We discover a good many caves, some of them of great extent. Numbers

of these enter from the sea, and require a boat to reach them. Others are far above the sea-level, indicating an upheaval of the land. One of these latter I explored on one occasion. The following account of it, from notes made at the time, may not be uninteresting. Turning round a grassy hillock on the brae face, the mouth of the cavern lay before us, not as we expected in the cliff, but in the green side of the brae. A good deal of *debris* and clay had been washed into it, but this made it the more accessible, and we had no difficulty in entering. When we had descended the mound of rubbish accumulated in the mouth, we found ourselves in a cave of large dimensions, and very lofty in the roof. At first we felt as if the darkness was very great, but we soon became accustomed to the gloom. We penetrated a good way, till the sides approached so near as merely to allow us to pass, though there seemed still little or no diminution in the height of the roof. By the time we had got to the narrow part of the cave it was quite dark, for we were not provided with torches, and we took the precaution of holding on to each other (there were two of us), and feeling our way before we ventured to put down our feet. It was well we did so, for, after surmounting a lump of table-rock, we could find no further footing. I set myself against the rock, so as to hold my companion more firmly. He reached over and stretched down his foot, but could find no landing; we got stones and threw them over, not without a slight quickening of the pulse, when we heard them bound from side to side, and dash with a hollow sound on the floor far below. Here there was a forcible termination to our advance. When we turned to retrace our steps, a fine sight presented itself to our gaze. Our eyes, now accustomed to the gloom, could see the whole of that portion of the cavern we had just traversed, lit up as it was by rays from the entrance. The entrance being upwards, and not sheer out, we could not see out to the sea, but the opening admitted

light enough to show the proportions of the cave. I measured from the brink of the cavern to the entrance, and found it to be about forty-five yards. Water was percolating from above, and dropping in all directions. The floor and sides were covered with a coating of fine red clay, but no calcareous incrustation appeared; from which it would seem that lime is absent from the rocks here. In the statistical account of this parish I find this remark, in reference to the caves: "One of these, called Hell-lum, is upwards of two hundred feet in length, and the pitch of the arch within rises to more than thirty feet." Probably my friend and myself had narrowly escaped exploring, both faster and further than desirable, this Hadean chimney.

On a high rock jutting out into the sea stand the ruins of the old Castle of Slains. North of it is a fine bay, with a beautiful sandy beach, but within a few yards of the shore of this beach numerous sunken reefs and rocks, just raising their ridges above the surface of the water, render the navigation of the coast very dangerous.

Here I was rather disagreeably made acquainted with a peculiar feature, often met with on this coast. Looking from the castle towards the little bay, the dry white sand of whose shore was glittering in the sun, you see first of all a pretty steep grassy descent, ridged diagonally and horizontally with the tracks made by sheep and cattle grazing. Beneath this, rather more than two-thirds down the slope, stretches out a broad grassy platform, level, and greener than the rest. Beyond, again, the slope descends as before till it meets the beach. I had lingered at the castle to sketch, and my friend was far in advance. Seeing such an apparently smooth field before me, and expecting to have the impetus of my first descent checked by the broad green patch before I had to make the second descent to the water, I began to run down the slope, bounding over the cattle paths, and acquiring con-

siderable speed, when all at once, as I reached the middle ground, I found I had plunged into a deep morass. I got out with all haste, and no detriment, beyond being well covered with mud about the legs, but had to make a considerable detour before I reached the beach. The clay had formed a ridge by the beating up of the sea. This ridge had accumulated water from the numerous springs which abound in the rocks above, and also the *debris* of vegetable matter, till soil was formed; so that at last there was a natural water meadow hanging midway down this steep brae face. These occur frequently, almost wherever there is a beach, and are carefully preserved by the people. A very little labour with the spade would drain any one of them, but as they afford the richest pasture to be met with near, their extension is fostered, rather than prevented.

Not far from this point, still northward, is a very extensive cave, called The Dripping Cave. It differs from the last I mentioned, in that it occurs in limestone, and is filled with stalactites and stalagmite. At one time some of the stalactites were continuous from roof to floor, and were very beautiful. I am sorry to say, however, that the most of them have been taken away and used for lime. I searched in vain for this cave. It seems that the overhanging clay, which is continuous all along the cliffs, had fallen in mass over the entrance and closed it. I examined all the brae, and climbed down to the sea line, and examined the rocks below. Much did I see that was interesting, but not the cave. A stream of water strongly charged with calcareous matter was falling over the cliffs, and covering the rocks with a limy incrustation. The water was actually percolating through the cave; but so completely was it at that time closed, that though, as I afterwards learned, I must have passed and repassed the spot where it was, it yet remained undiscovered. I am informed that it is again accessible, and I hope in the course of the ensuing summer to

examine it. In this neighbourhood, where the clay reaches the edge of the cliffs, it is fringed with tall grass. When the culms have withered and fallen over the cliff, the water from the high ground runs along them, dropping from their points, and, such is the vertical character of the cliffs, it falls one hundred to one hundred and fifty feet into the water below.

As I have already stated, the principal rocks met with on this part of the coast are gneiss and mica slate.—To these may be added various porphyritic combinations, and basalt.

The next parish, Cruden, carries on the coast line seven miles further. The gneiss and mica slate extend part of this way, after which there is a broad sandy beach, called the Ward of Cruden. The south end of this beach is marked by a remarkable reef of sunken rocks running far out into the sea, called the Scars of Cruden, and many a gallant ship has been wrecked upon them. Northward the bay is terminated by precipitous cliffs of red granite, which extend from this point onward beyond Peterhead.

There is little to be told of this part of the coast, beyond a few descriptive remarks to exemplify how it has been disrupted, and torn, and heaved into the most rugged and frowning coast line exhibited almost anywhere,—indicating a "*turgidum mare*," and forcibly reminding us of Horace's "*infames scopulos acroceraunia*."

On the first granite headland after passing the Ward of Cruden stands the modern Slains Castle, the seat of the Earls of Erroll. It is almost insulated, a strip of sea running round to the north, and trending so far west as to leave only a narrow isthmus by which to obtain access to the castle. This arm of the sea is called the Langhaven, and is quite narrow; it is, in fact, a mere rent or fissure on a large scale. It contains deep water, and its sides are so perpendicular and so high, that, in looking up from below, the eye does not perceive a much greater breadth of sky than, looking down, it

perceives breadth of water. Seaward the cliffs are equally high and equally precipitous. It is said that from the library or drawing-room windows a stone dropped falls directly into the water. A carriage way formerly ran round the castle, but this has now disappeared, owing to the fall of a large portion of rock. Looking from these windows, nothing is to be seen but sea and sky.

Not far from the castle there is a cave of peculiar construction. It opens to the sea below water-mark, runs horizontally for a considerable distance into the rock, and then rises till it comes to the surface in a field some way from the edge of the cliff. From the rolling of the waves into the cavern below, an atmospheric current is created, sufficiently strong to blow into the air any light article thrown into the upper aperture of the cave; and when there is a gale from the east a column of spray rises continuously from it. This cave, as well as the one formerly noticed, has received the name of "Hell-lum;"\* indeed every cave of similar form obtains this designation all over this coast.

Many insulated rocks, of nearly equal altitude with the main line of coast, are scattered all along at various distances from the shore. One of the most famous of these is called the Dun Buy. Although Dr. Johnson, in his "*Tour to the Hebrides*," says of it, in reference to the urgent request of Lady Erroll that he should not leave Slains without seeing the Dun Buy, that there is nothing about it to detain attention, it is, nevertheless, to those who see it a very striking object, standing isolated and bare, majestic and unmoved, amid the buffetings of northern storms. Description can convey no idea of the peculiar feelings of awe and wonder created by the sight of such effects of forces, with whose operations we are now unacquainted. This rock has, moreover, been rendered classical by Sir Walter Scott's introduction

\* "lum," Scottice for chimney.

of it into his story of "The Antiquary." "Are ye mad?" said the mendicant; Francie o' Fowl'sheugh, and he was the best craigsman that ever speeled a heugh (mair by token, he brak his neck on the Dun Buy of Slains), wad na hae ventured upon the Halkethhead craigs after sundown."

My favourite rock is one which the oftener I see it strikes me the more. It is some two or three hundred yards in length, surrounded by the sea, but lying in the mouth of one of these rifled fissures with vertical sides. On the side towards the land it presents a smooth surface of red granite, apparently as smooth as if dressed with a chisel, and in the centre it is perforated with a triangular hole, of gigantic dimensions. The upper surface is covered with grass and sea flowers, *Galium vernum*, *Statice armeria* (thrift), *Silene maritima* (catchfly), saxifrages, &c. &c., and it is the secure breeding-place of thousands of sea fowl. When the sun shines brilliantly on this rock, lighting up its reflection in deep emerald water, it is a sight to gaze at for hours together.

The famous open cave called the Bullers of Buchan, or in the local dialect Birs Buchan, is in this locality. On the north side of a little creek, presenting the usual perpendicular walls of immense height, the rocks jut out some way into the sea. In this promontory, a huge circular pot has been scooped out. Its sides present perpendicular walls of rock, and towards the sea they are of inconsiderable thickness, at one point, on the upper edge, not more than one or two yards, narrowing even to less for a very little way. It is reckoned a feat to walk round, and a story is told of a man who, in a drunken fit, took a wager that he would gallop round on horseback. He accomplished the feat, but, on becoming sober, was so startled by the risk he had run, that he died of fright. The sea flows in by a natural arch. In stormy weather, with an easterly wind, the dashing of the waves through this narrow aperture, and the recoil they make

against the sides of the chasm, resemble the boiling of a huge caldron; and hence the name. I visited it once (among many visits) on a beautifully calm day. Taking boat we rowed round the point, and found the entrance not much wider than admitted an ordinary sized four-oared fishing boat. Even in the smoothest weather there is inside a peculiar roll in the water, and as the rock is caverned out in all directions, and to great depths, there is a hollow roar, which adds greatly to the impressiveness of the strange scene. In the pompous language of Dr. Johnson, which is, however, well adapted for such a description as this: "We found ourselves in a place, which, though we could not think ourselves in danger, we could scarcely survey without some recoil of the mind. The basin in which we floated was nearly circular, perhaps thirty yards in diameter. We were enclosed by a natural wall, rising steep on every side to a height which produced the idea of insurmountable confinement. The interception of all lateral light caused a dismal gloom. Round us was a perpendicular rock, above us the distant sky, and below us an unknown profundity of water." He adds, with a *naïveté* perhaps still more descriptive of the characteristic "awesomeness" of the place, "If I had any malice against a walking spirit, instead of laying him in the Red Sea, I would condemn him to reside in the Buller Buchan."

Beyond Cruden, the coast line extends about five miles through the parish of Peterhead, commencing a little to the south of the point of Buchan-ness, and reaching beyond the town of Peterhead, to the mouth of the river Ugie. "Between the parish of Cruden," I quote from the *Statistical Report*, "and the fishing village of Boddam, in this parish, the sea is bounded by high cliffs of granite and other primary rock, forming mural precipices: and this part of the coast is indented with many chasms, fissures, and caves, and these in some cases divide the granite from the trap rock. From

Boddam, to the Bay of Sandford, the coast is low and rocky. The Bay of Sandford, extending some distance inland, is bounded by a flat sandy shore, intermixed with pebbles." Between the point of Salt House Head and Keith-point, on which the town of Peterhead is built, the Bay of Peterhead extends about a mile inland. Its shores are flat and rocky, terminating in sand and pebbles at its innermost bound. All this coast, from Boddam to Peterhead, although low towards the sea, the rocks scarcely appearing above high water, except where the heads run out, and a flat sandy beach extending most of the way, is nevertheless abutted upon by cliffs of clay of considerable height, so that the general outline of the coast appears high. From Keith-point, which is the most easterly nook of Scotland, the coast recedes till the mouth of the Ugie is reached, preserving the same character of a rock bottom, a sandy beach, and steep diluvial cliffs abutting on the sands.

"The whole of the parish of Peterhead (I quote again from the *Statistical Report*) is upon primitive rock. In the Stirling Hill, Black Hill, and Hill of Cowsrieve, the granite or syenite rises to the surface. Along the coast, and in other parts of the parish, it is covered with clay, supposed to be diluvial, and other matters, to a greater or less depth. Upon the Stirling Hill the granite rises to the surface, or nearly so, over an extent of from one hundred to one hundred and fifty acres. In every place where the syenite or granite is laid bare, embedded masses, veins, or dikes of primitive trap, gneiss, quartz, and compact felspar alternate with and run through it. In some cases one-half of a block is granite and the other primitive trap, in complete cohesion, and often passing into each other. At the old Castle of Boddam the rock is separated by a fissure or chasm, one side of which is granite and the other primitive trap. This chasm runs east and west, the granite being on the south and the trap on the north, with a considerable angle

to the horizon. Near the Buchan-ness Lighthouse there is a pretty extensive bed of hornstone porphyry. The rock along the coast, from Buchan-ness to the mouth of the Ugie, may be seen at low-water mark, and consists of granite, primitive trap, syenite, gneiss, compact felspar, felspar porphyry, and quartz, variously associated with each other. The Meet-hill is covered with a deep mass of diluvial clay. At the Brick-work, which is about fifty yards from the beach, and where the clay has been cut to the depth of from thirty to forty feet, it exhibits various strata, which appear to have been deposited at different times, from their differences in quality and colour: some of the deposits are not above an inch in depth, while others are several feet. The skeleton of a bird was (in 1837) dug out of the clay here, at the depth of twenty-five feet from the surface, and about fifteen or twenty feet above the level of the sea." This clay, mixed in some places with rounded pebbles, covers a very considerable part of the parish.

When I come to speak of the chalk flints I shall have to recur to this portion of the coast. Meantime I pursue my general sketch.

The next three miles represent the coast line of the parish of St. Fergus. The beach is flat and sandy, and the whole line of shore is thrown into two divisions by the rocks at Scotston Craig, each division forming a rude segment of a circle; the one extending from the mouth of the Ugie to the craig, and the other onwards to near Rattray Head. The shore is completely cut off from the inland by a series of hills, which have been formed by the drifting of sand, and which, being thickly covered with bent-grass, prevent the sand-drift from encroaching on the rich arable lands of the interior.

The only rocks *in situ* are to be seen at Craig Ewen, near the mouth of the Ugie, and at Scotston Head.

At Craig Ewen we have a granite containing very little

quartz in its composition, and exhibiting, although rarely, veins of compact felspar of a deep red colour.

At Scotston Head the rocks are accessible only at low water. They consist of granite, gneiss, trap, quartz, and limestone. "The gneiss and granite," says the *Statistical Report*, appear often in close and inseparable union. The granite varies in appearance as it comes more or less into contact with the gneiss. When the junction is complete it is white; where the granite underlies the gneiss, but without any union between them except contiguity, it assumes a dark colour, and discovers more hornblende in its composition than in its other positions. At one point the granite is graphic (*i. e.* the crystals of felspar are large, and so disposed as to present the appearance of rude lettering). The limestone is separated by a fissure from the granite, but appears in one or two places united to the gneiss; and there is reason to believe that it forms a junction with the granite at a more remote distance from the shore. At Hythie, in the parish of Old Deer, and in a line due west from Scotston Head, limestone and granite of the same character as at the latter place make their appearance, in very intimate union. At Blackstones, between Scotston rocks and Craig Ewen, there are three distinct congeries of large boulders within the flood-mark, consisting indiscriminately of granite, graphic granite, primary and secondary limestone, puddingstone, grauwacke, gneiss and basalt."

I have copied these sentences from the statistical account, and have retained the words primary and secondary limestone because I found them there. I have, however, no evidence to give as to the distinction between the limestones, further than that the description denominated secondary is said to contain fossils of the Ammonite genus, and also mussels; these last being, however, distinct from any of the known existing species.

In parts of the parish, beneath the soil, the sub-stratum consists of sand, mixed with remains of marine testacea. There are also indications along the coast that the land has been gaining on the sea.

The parish of Crimond carries on the coast two miles further. Beach and sandhills form the predominating features, except at Rattray Head, where there is a long ridge of low lying rocks, called Rattray Brigs, running at right angles to the shore, and extending a mile and three-quarters in an easterly direction into the German Ocean. Great part of this ridge is only visible at low water. These rocks seem to consist of granite, whinstone, and trap, and limestone also occurs in various places. The principal feature of interest on this part of the coast is the existence of a large lake, called the Loch of Strabeg. In A. D. 1700 this loch was of very small extent, and open to the sea, so that small vessels could enter it. About 1720 a severe easterly gale silted up this communication. The loch now covers an area of about five hundred and fifty acres, and it receives all the streams of the neighbourhood. It has no outlet, and is wholly fresh. Its average depth is about three and a half feet, and it is being gradually filled up with the detritus carried into it by the streams. I said there is no outlet to it, but it is very apparent that the overplus of the waters finds its way to the sea, through the sandbank which separates the loch from the ocean. This belt of sand is, however, about half a mile in breadth.

From Rattray Point, four miles carries us over the seaboard of Lonmay parish, a flat sandy beach, trending considerably to the westward. Two miles more cover the parish of Rathen, one point of which, that of Cairnbulg, runs out northwards into the sea, the coast line receding again south-westward, so as to form a very considerable bay between it and Kinnaird's Head, immediately to the south of which last lies the town of Frasersburg.

The coast line of Frasersburgh parish extends about four miles; two miles of this to the south of the town are low and sandy; the rest is rocky, but not high, except at Kinnaird's Head, which, forming the turning point of the Moray Firth, stands out a high and bold headland. The rocks on the coast are gneiss and mica slate. Mormond Hill, lying to the south, in the interior is quartz rock surrounded by gneiss. Its height is eight hundred and ten feet. At the upper end of the town of Frasersburgh limestone occurs, and is quarried for building purposes. Limestone also occurs in the parishes of Lonmay and Rathen.

Westward the two parishes of Pitsligo and Aberdour complete the district of Buchan in the shire of Aberdeen, in this direction. The real boundaries of Buchan proper are the Doveron on this side, and the Don to the south.

The coast line of Pitsligo is four miles in length. My impression of its appearance from a ride along the coast was, that from Frasersburgh to Rosehearty it was sandy, rising into considerable hills, and at low water presenting low flat rocks beyond the beach. Onwards from Rosehearty towards Aberdour it is very different, rising the whole way in an uninterrupted mural line of blackened and rifted precipices.

I stayed two days one summer at Braco Park, about a mile west from Rosehearty. To wile away a forenoon we went to fish from the rocks. The house was about a quarter of a mile from the sea. A single field lay between. To within a hundred yards of the edge of the cliff this field presented a steep descent. At that point a little marshy hollow was carpeted with *Anagallis tenella*, or the pale bog pimpernel, and starred with the beautiful *Parnassia palustris*. Vaulting a three foot wall of loose stones, five or six yards more took us to the cliffs. These are so precipitous that there are but one or two places where it is possible to descend them. In descending, we passed a fissure going down plumb

to the water quite narrow, with equidistant sides perfectly vertical, in which the swell was roaring far into the earth with a hollow sound. This and numerous other fissures run further into the cliffs than the most adventurous have ever yet penetrated. Of this particular one it is related that in it a too curious explorer lost his life. He took with him the national musical instrument—the bagpipes, that he might indicate by their strains to his friends *on* the earth how far he had penetrated *into* it. It requires too great credulity to believe all that is told as to the length of time his music was heard, or the distance inland at which the decreasing sounds were audible; one thing is certain, they ceased at last, nor did he ever return to tell how he had fared.

About half way down the rocks a broad platform expanded, from which, by various perilous ways, it was possible to reach *near* the water, but at no point to attain it. Seated here on a jutting crag, with our legs hanging over the deep green water, nought was to be seen but the wide expanse of ocean before us, unscalable walls on either hand, and behind the rugged precipices, our line of descent adown their faces scarcely discernible. Westward, like a dim haze, rose into mid air the old red sandstone cliffs of Troup-Head, the long roll of the Moray Firth every now and then sending a cloud of spray far up their rugged sides, while they stood out as if in bold defiance or proud contempt of its buffetings. The features of solitude are periodically changed during the season of the herring fishing; at least for an hour or two every evening, when the boats from Frasersburg may be seen shooting out in crescent form from east to north-west, and those of Rosehearty stretching away to join them in an inner segment. It is a lovely sight to watch them from these rocks on a July or August evening, as the line of boats attenuates, and they gradually grow indistinct and dim in the distance, till the scene which was but now instinct with life, and that a life

full of the excitement of the deep and its perils, is again resigned to the wild solitude and undisputed sovereignty of ocean. Such is a rude picture from this rock-bound coast.

On the afternoon of the same day we rode along the cliffs as far as Aberdour. The same stupendous cliffs are witnessed; but the colour of the rocks changes from the greys and blacks of the gneiss and the mica slates to the reds and browns of the old red. All along this coast deep glens run into the interior, so narrow and so steep in their declivities that it is necessary to make the roads zig-zag down their sides, and so up again. In these dens, as they are called, such as the Den of Aberdour, the Den of Auchmedden, the Den of Dardar, the climate is so mild that stations for many of the rarer plants of our country are found in them. I only specify the rare and beautiful *Trientalis Europæa*. Caves abound in the sea-cliffs, several of which derive a deep local interest, from their having afforded hiding places, after the battle of Culloden, to Lord Pitsligo, the Jacobite lord of all that land. There is also to be seen at Pitjossie a stupendous natural arch, through which the tide flows at high water, and said in grandeur and magnificence to equal, if not surpass, the Bullers of Buchan. But the astonishing feature of the latter spot is not the arch, but the basin into which the waters flow.

Gamrie, with its famous fish-beds, follows Aberdour. On these I do not enter. Beyond Banff, at Boyndie Bay, the chalk flints occur, as we shall see immediately, when we trace the course and extent of this curious deposit.

We now turn to the consideration of the chalk flints.

Running slightly to the south of west, there is a ridge of high ground, taking its rise nearly at Buchan-ness, and stretching across the country continuously for eight to ten miles;

at its eastern extremity it branches. One of the forks terminates south of Buchan-ness in the mass of granite already mentioned, under the name of Stirling Hill. The other runs north of Buchan-ness, and may be said to terminate in the granitic escarpment of the Black hills. All along the shore, wherever between these points the rocks admit of a beach, quantities of water-worn flints are found mingled with the other pebbles, evidently brought there by the waves. They are also found, although sparingly, on the southern ridge, or Stirling hill. But on the Black hill, and neighbouring hill of Invernettie, the surface is almost covered with them. This ridge, at the distance of about seven and a half miles from the sea at Salthouse-head, attains an inland distance of about five miles from the coast opposite Slains. The flints are met with on the surface at various points along that line. The ridge is bare and moorish, but covered with peat and heather, and this prevents the flints from being accurately traced. At this point, however, seven and a half miles along the ridge, and five miles from the sea, they have been laid bare.

They occur at the extreme verge of the parish of Old Deer, and are principally seen at the farm of Bogingarrie, on the lands of Kinmundy. The ridge of hill here trends to the north, coming round again towards the west, so as to expose to the south a deep bay, with a considerable slope to the south. The hill is covered with moss and heather, and is partly planted. The south face of the hill has been under cultivation for the last forty years. The flints are seen on the surface, commencing pretty far up on the east side of the hollow, and following at the same height the crescent form of the bay, disappearing among the heather, which has not yet been removed, on the extreme west. They are in great abundance, covering a space of from twelve to twenty yards in breadth.

About 1830, in cutting a ditch to carry off the surface

water from the garden of the farmhouse of Bogingarrie, the bed of flints was come upon, and found to be of considerable thickness. The ditch ran from south-west to north-east, traversing the flint-bed, and a short cross ditch lay in the line of the bed.

When I saw the ditch first it had been open a good many years, and had become partly filled up. It had, however, a singular appearance. It was crossed by the road to the house, and the water-run of the bridge was quite choked with rounded flints of all sizes. Above the bridge the bottom of the ditch was quite covered with rounded flints, brought down by torrents. As you ascended the burn you could see the nature of the ground. The layer of soil was extremely thin, and below it the ditch was cut through a stiff yellow clay, scarcely a pure clay, more like a yellow clayey gravel, and so hard as to be pierced with difficulty. Until you reach the bed itself very few flints are to be seen amongst the clay. The top end of the ditch and the cross one are in the bed. The flints lie closely packed together, embedded in the already mentioned clayey matrix.

Many of them weather when exposed to the air, becoming white, and in some cases they shiver into flakes. When newly taken out of the bed they usually break with a clear fracture, but soon they become hard and lose their facile cleavage. Every one contains some trace of organic remains. I have examined a great many, and rarely missed seeing some indication of such; although it is more rare to find the fossils sufficiently perfect to make them worth preserving.

In the localities near Peterhead there have been found "considerable variety of the *Echini* family, occasionally entire, but more frequently only small portions of the impressions of these shells are found. Single spines frequently occur, and are distinctly marked. The *Inoceramus*, *Pecten*, and *Terebratula* are very abundant."

Flints are also found on the surface of the Hill of Skelmuir, adjoining Bogingarrie. This hill is separated from the Hill of Kinmundy by a valley and a deep morass, called the Bog of Ardallie. South-westward they are found in great abundance on the Hill of Dudwick, in the parish of Ellon. This seems to be their southmost limit. I learn from a paper of Mr. Christie, of Banff, published in the *Edinburgh Philosophical Magazine* for 1831, that they occur, as already alluded to, at Boyndie Bay, in that shire, and also in a mass of diluvium covering the high grounds between Turriff and Delgaty Castle. The flints at Boyndie Bay are found strewed along the shore, and contain traces of zöophytic organic remains. Those at Delgaty are likewise characterised by the remains of sponges, &c. The station at the latter place is ten miles from the sea, and is the highest ground in the neighbourhood. The flints are found, as already mentioned, in a mass of clay, cresting the hills. None are found in the hollows.

I am indebted to Mr. Salter for a list of upwards of twenty species, which he named from the specimens I have collected at various times. The best specimens are deposited in the Jermyn Street Museum. He has described and figured three as new species.

The other rocks in the immediate neighbourhood of the Bogingarrie flints are granite, trap, and limestone. We have northward, white granite at Smallbarn; and red at Newton and Greenmyre. The rising ground on which the house of Kinmundy stands is a greenstone trap. Nothing but this was met with in digging the foundations of the house. It was also met with, along with a loose gravel below it, in sinking the well close by to the depth of forty-six feet. On further deepening the well, thirty feet of solid rock were gone through. It comes to the surface in the wood behind the house, and is quarried for dykes and drains. In the hollow behind, again at Cassieford, we have a deep deposit of peat.

On the south side of the hill at Millhill, granite and gravel; on the north, granite, quarried for building purposes. Below Barnyards there is an escarpment of what seems to be mica slate. West from that, all over the hills of Coynach and Knock, there are immense boulders of clinkstone—Heathens as they are called there. These are water-worn and striated; some of them are many tons in weight. Four miles further, at Hythie, limestone resting on granite. North-westward, at Annochie, we have limestone quarried for burning. It is much cut up by veins, dykes and blocks of gneiss, from which we may gather it rests there upon gneiss. It is impure, containing a good deal of magnesia. Beautiful specimens of calcareous spar are met with now and then in drusy cavities in the rock.

The country presents numerous simple minerals. Many varieties of quartz, such as milk, rose, violet, ferruginous, spongiform, &c., and sometimes very large specimens of rock crystal, are picked up in the fields. Jaspers are common. Veins of antimony are found in the granite, and several varieties of the ores of iron. Manganese in the dendritic form is seen sometimes in the limestone. Crystals of schorl, sometimes of large size, I have often procured from huge fragments of white quartz. In one spot there is a quarry of these quartz blocks, some of them of great size. They are not water-worn. I once picked up a piece of granite with numerous small crystals of beryl.

In the peat are found trunks of trees, principally oak, and large quantities of branches of birch and hazel, with nuts of the latter. Not a hazel bush has been seen in the district for upwards of a hundred years; yet in some places, by simply turning over the turf, hundreds and thousands of hazel nuts may be laid bare. The antlers of stags have also been dug in the district, but not recently.

I must now call your attention to another geological feature,

of very peculiar interest. I find it stated in my college notes (made in 1839—40), that the greensand was said to exist in Cruden; a fact which I believe was communicated by the late Dr. Knight, of Marischal College, Aberdeen, to the late Dr. Thomas Thomson, of Glasgow College, previously to the date I have mentioned. I have shown, both to the Philosophical Society of Glasgow and to the Geological Society of London, that fragments at least of a greensand formation do exist in these northern granitic countries.

I have formerly described this deposit as running through two parishes, Slains and Cruden. And I have stated that it differs in its lithological character in different places. It is possible that the deposit in Slains belongs to a formation equivalent to what is known as the "English Crag."

I will describe this deposit first from my own data, and refer afterwards to the evidence which has led me to alter my opinion as to the rocks.

The places from which my specimens are taken are six or eight miles distant from each other. The first, which we now suppose to be "Crag," lies most to the south, about two miles inland from Collieston. The deposit takes the form of a ridge of hills, surrounding three sides of a loch. This loch has been ascertained to be in one place fifty-two feet in depth; and the hills rise around it to the height of from forty to fifty feet. They are composed of gravel, mingled with comminuted shells, and amongst their gravel are water-worn nodules of limestone, mica slate, and gneiss. The limestone nodules contain organic remains. Our gardener, who collected my specimens, says he broke the most he saw, but only found the remains in one. The sand and gravel among which these nodules occur are full of the *debris* of marine shells; and Mr. Jameson has printed a list of such, at page 372 of the *Geological Society's Journal* for 1860. The nodules are much water-worn, and the loose fragments of shells are very much

abraded. Mr. Searles Wood, the great authority on the "Crag," has communicated to Mr. Jameson his opinion that these fossils have a decidedly "Crag" aspect.

The deposit at the other point, namely Moreseat, and which I have no hesitation in saying is undoubtedly a fragment of greensand, were described as consisting of a calcareous sand, visibly stratified, of a greyish hue, and also composed of comminuted shells. This I had examined, and after the date of my first paper I examined it for myself. I abstract what I have elsewhere said of it from the *Philosophical Magazine* for December, 1850.

The greensand is found at Moreseat, in the parish of Cruden. The locality is on the ridge of high ground running south-west from Buchan-ness. In the immediate neighbourhood the evidence of extensive denudation is very marked. The deposit, though its existence was known, was brought more completely to light in this way. The proprietor of the farm, Mr. Johnstone, had built a new mill, and on making an excavation for the water wheel, several large and curious shells, embedded in a fine-grained compact sandstone, were turned up. The sandstone itself, previously little noticed in this locality, would have been enough to attract notice, far more the shells. One of these was the fragment of a cast of an ammonite. The portion preserved was at least four inches in diameter. The deposit was about nine feet below the surface of the ground, and yielded water freely. The wheel is now built in, and the locality in consequence cannot be examined. Several hundred cartloads of material were taken from this excavation, and used to fill up inequalities in the surrounding fields. It is to be regretted that this mass was not examined previous to its being thus used, as it too is now beyond reach. About four hundred yards to the north-east of the first spot opened the fossils were again met with, in opening a ditch as a fence to a field newly reclaimed from moss. I

examined this ditch in 1850. The deposit is from one to three feet below the surface, and traceable one or two hundred yards. An excavation about seven feet in depth was made, and the section presented irregular layers of unctuous clay, of a dark brown colour and soapy feel, and so tough and adhesive as to render it a work of considerable labour to dig it out. Interstratified with this clay were thin layers of a compact sandstone. These layers of sandstone were not continuous; they graduated into each other, thinned out, disappeared, and reappeared, most confusedly. They were very much inclined, dipping towards the south. The whole mass had much the appearance of having been drifted; although, from the nature of the matrix, and the state of preservation in which the shells are found, it does not appear as if it could have been transported far. The sandstone is tough and soft when newly dug, but hardens on exposure to the air, and becomes light-coloured in drying. When wet it presents a mottled appearance, the colouring being greenish; when dry, this almost disappears. The exterior surfaces are quite reddened with iron. Many of the remains are casts, and are on the outer surfaces of the fragments of sandstone as well as in the interior of the masses. Of the remains themselves, flattened *spatangi* are most abundant. Mr. Salter and Mr. Baily have named twenty species from my specimens, and Mr. Salter considers these clearly conclusive that this fragment belongs to the "Upper Greensand." Some of the species are new.

Flints, as you are aware, are found in the highest beds of the cretaceous group, and they seem to be invariably formed around some organic body. I do not enter to-night into the various theories (principally those of Dr. Buckland and Mr. Bowerbank) as to their origin, but will only quote Mr. Ansted's remark regarding them: "They are," he says, "equally puzzling to the geologist, the chemist, and the zoologist."

I may add, when they are found, as in Buchan, overlying the granite, they form a geological problem about as hard to solve as their own substance.

From our brief survey of the surrounding country, we saw that the predominating rocks are the crystalline and the stratified unfossiliferous. Only in one instance did we find a limestone with organics (an ammonite), which might consequently belong to a later formation. Old red sandstone occurs at Aberdeen, again certainly at Gamrie, but it has not been positively seen at any point between, although it has been supposed that it may nevertheless envelope the primary rocks along the coast beneath the sea level. Oolite and wealden beds occur in the neighbourhood of Elgin. The distance between these beds at Llanbride and the flints of Buchan cannot be less than fifty or sixty miles. Water-worn fossils of the Lias occur at Blackpots, near Banff, but there they are manifestly in a drifted clay. The old red sandstone is the newest rock that is known to occur over all Banffshire, consequently the whole of that county comes between the deposit under consideration and the newer formations of Morayshire.

This newly-determined greensand of Cruden is the only rock at all approaching, in the geological sequence, the chalk beds from which the chalk flints must have been derived. We have been forced to conclude concerning it, that if it is not *in situ*, it is at least not far removed from it.

The question then arises, How came the flints there, and whence?

Mr. Hugh Miller, cautioning the young geologist against concluding that because he finds a rock resting upon gneiss it is therefore low in the geologic scale, instances, as an example of the error such a conclusion would lead to, the flints and chalk fossils of Banff and Aberdeen lying immediately over it in these counties; and adds, "It is probable that the

denuded members of the cretaceous group once rested upon it there."

Dr. Jameson, too, in the *Edinburgh Philosophical Journal* for 1831, states the same opinion, adding that it will probably be found in some of the hollows of this part of Scotland.

This is one theory: That the lower beds, and the chalk of this very bed itself, have been removed by denudation, leaving the flints resting upon the granite.

Opposed to this theory is the fact that the flints are invariably water-worn. True, even according to it they would have presented some such appearance, but hardly to the same extent; and it seems as if a denuding agency, sufficiently powerful to produce the rolled effect noted, would have removed them, as well as the other beds and their chalk matrix, especially as they occur not so much in hollows as on the sides and summits of hills.

Mr. Nicol states his opinion thus: "Probably these recent secondary formations once existed here, or may still be covered by the sea, and connected with the similar beds on the Moray Firth. This opinion is confirmed by the occurrence of lias containing coal at Hogenaes, in the south of Sweden, where it rests on gneiss, and is covered with chalk."

This leads on to another theory which has been suggested to account for these flints—namely, that however such secondary beds may have once existed here, these individual water-worn flints owe their origin to a transporting agency, which has brought them from the chalk formations of the Northern Continent.

The volcanic and tidal agencies operate in a direction between south-west and north-east. All the mountain ranges and great formations of our island assume in the general that direction. The great mountain range of Norway assumes the same. I am not sufficiently acquainted with Norwegian geology to connect it skilfully with Scottish. At

Christiania there is a group belonging partly to the lower and partly to the upper Silurian rocks. True chalk with flints has been clearly determined in some parts of Denmark. This Danish group may have been continued into Norway at one period, and afterwards removed by denudation, the same agency transporting the flint nodules to our own shores.

It may bear against such a supposition of transportation, that the direction of the currents seems usually to have been from south-west to north-east, and that for this theory it requires to have been reversed. It may be suggested, "Might not the elevation of the great northern mountain ranges of the Continent have been sufficient to cause a tidal wave or current from its shores to these of ours, capable of exercising the transporting power required? The presumption is, however, against such a supposition.

Standing on the ridge of the hill of Kinmundy, and looking towards the south and east, there is spread out before the eye a wide expanse. Slightly to the north of eastward the ridge is continuous to the sea at Buchan-ness. Westward it undulates, receding northwards, and again stretching out a promontory to the south. Beyond this there is a gorge narrow and deep, and again the hill rises, stretching away westward and northward, and running out in a series of high grounds by Dudwick towards Turriff and Delgaty, and so onwards to the sea at Boyndie. Between this ridge and the sea, on the east and south-east, there stretches out, from the sort of bay described, a breadth of five or six miles of levelish country, presenting inequalities of surface and some rising grounds, but in the main levelish till it reaches the sea, with a coast line elevated one hundred and eighty to two hundred feet above the sea level. It is over this valley that the calcareous sands (crag) occur. It is near its centre that the greensand lies; and standing, as I have said, on the hill ridge, and marking, as one cannot fail to mark, the band of flint

boulders that line near their highest, and at an equal elevation, the various bays and promontories, it requires no great stretch of imagination to conceive of the waves of the German Ocean as having once rolled even hither, bearing with them, and depositing on their innermost bounds, the rounded flints that mark their ancient shore.

But it may be argued, The greensand beds lay right in the way, and must have suffered also from the denuding power of the waves. If future examination shows that these beds are *in situ*, we must yet look for another theory.

I have already stated that the shores of the little bays near Peterhead present large quantities of the rounded flints. These may have been either brought down by streams, or cast up from the sea. I have also inferred, from the condition of my specimens of organic remains from the Cruden greensand, that that formation is either *in situ*, or at least not far removed from its original position,—not presenting any evidence of being water-rolled, and not capable of undergoing without destruction that process.

I wish to connect these two facts with an idea hinted at by Nicol, as already quoted, and additional grounds for which have been pointed out to me by Mr. Hugh Miller. Across the southern districts of England, we have a certain sequence of geological formations, including in regular succession, the lias, oolite, and wealden, succeeded by the cretaceous group. Across that portion of Scotland immediately to the north of the district at present under consideration, we have part of the same sequence, commencing with the lias. This formation at Cromarty is considerably to the *west* of the first appearance of the same formation in England: but this results naturally from what was before mentioned of the geological formations, running not east and west, but north-east and south-west,—not right, but diagonally, across the country. We have then lias, at Cromarty; and a lower oolite, near Elgin

May it not be possible, that all we want to complete the remaining members of the series, is simply to be able to carry out our section into the Moray Frith?

Such a hypothesis receives confirmation from the fact that in the neighbourhood of Elgin are beds containing wealden fossils; which, says Nicol, we are led to suspect are not original formations, but fragments of more extensive beds, perhaps drifted to this place. The drifted clay, containing lias fossils at Blackpots, may also indicate a formation beneath the waters of the bay. By referring to the Geological Map of England, it will be seen that the greensand accompanies the chalk on the west, and on the east, the lias, &c., to the shore of the channel. Our patch of it at Cruden might form part of the termination of a similar strip, unless it too may be accounted for in the same way as the Moray wealdens, by supposing it a drifted fragment from the north.

May we then fairly infer that at one period the space now occupied by the Moray Frith contained a perfect sequence of the Secondary formations? That first, the soft chalk strata suffered denudation, by the ordinary action of north-easterly gales, and that the roll of the German Ocean piled up its water-worn flint boulders along its successive ancient shores; and that the wealdens and oolites of Elgin, and the lias of Blackpots, followed in the same course?

That part of this theory applicable to the lias of Blackpots, Mr. Miller states thus, in his description of that deposit:—  
 “There had probably existed to the west or north-west of the deposit, perhaps in the midst of the open bay, formed, by the promontory on which it rests (for the small proportion of other than liassic materials which it contains seems to show that it could be derived from no great distance), an out-lier of the lower lias. The icebergs of the cold glacial period, propelled along the submerged land by some arctic current, or caught up by the gulf-stream, gradually grated it down, as

a mason's labourer grates down the surface of the sandstone slab he is engaged in polishing; and the comminuted *debris*, borne eastward by the current, was cast down here."

At Blackpots the lias fossils occur in clay, containing few other boulders. At Boyndie, further west, flint boulders are pitched up on the shore. And at Delgaty, ten miles inland, they occur in great abundance, along with boulders of quartz rock, but no fossils except their own. It would therefore appear that we owe the flint boulders and lias boulders to different periods.—And as the chalk overlies the lias, it may be that its denudation was completed, and its fossils thrown up on the high grounds of the interior, previous to the formation of the boulder clay, containing the fossils of the lias. Although not in this locality, as far as we know the boulder clay has in other places (as on the banks of the Thorsa in Caithness) been found to contain "fragments of chalk flints, and also a characteristic conglomerate of the oolite, as well as comminuted fragments of existing shells." These facts seem also to favour the hypothesis just stated.

Since I first wrote on this subject, more attention has been paid to the pleistocene deposits in the locality with which we have been dealing. I am not aware that any new facts have been elicited, regarding the topics I have made our subject to-night. And I feel that the subject altogether is one involved in considerable darkness, and that it is vain to attempt any generalisation upon it, till the local geology has been far more accurately examined and determined. To this end, the yearly labours of Mr. J. F. Jameson, of Ellon, are devoted, and each season adds to our knowledge of the country. What a curious jumble we have in that out-of-the-way corner of the world. - Rock-bound coasts of frowning granite, slates, and porphyries; slips of old red sandstone, patches of greensand and red crag; wealden and lias, and chalk fossils! And all, as we say in Scotland, pretty much

“carded thro’ other,” that is, mixed up promiscuously. Ere this gordian knot be untied, much of interest to the geologist, both scientific and economic, cannot fail to come to light,—and the labour which must be extended on the examination, will assuredly not be thrown away.

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#### EXTRAORDINARY MEETING.

The Society then resolved itself into an extraordinary meeting, to consider a recommendation from the Council, “That a sum of £10 be granted from the funds of the Society to the Gallery of Inventions and Science, in aid of the objects of that institution.” After considerable discussion the proposition was negatived, the opinion of the meeting being, that, having launched the institution and set it in a fair way of prospering, it would be better to now leave it in the care of its natural guardians—viz., the Library and Museum Committee of the Town Council.

## NINTH ORDINARY MEETING.

ROYAL INSTITUTION, Monday, February 20th, 1865.

J. A. PICTON, Esq., F.R.S., PRESIDENT, in the Chair.

The following gentlemen were balloted for, and elected ordinary members:—Rev. Alexander Gordon, M. A., Mr. D. M. Lalcaca, Mr. Albert H. Samuel, and Mr. Charles Robert English.

Mr. T. J. Moore exhibited some interesting marine specimens, lately presented to the Derby Museum by Mr. C. J. English, including fine examples of *Velella* and *Porpita*, and several species of fish, including a very large and finely-preserved *Diodon*. They were collected on a voyage to the China Seas, by Captain Cameron, of the Ship *Staffordshire*, and were accompanied by notes of latitude and longitude, &c.

Mr. Moore also exhibited a small but rare crustacean, presented to the museum by Mr. J. O. W. Fabert. It belongs to the family *Leucosiadae*, and agrees precisely with the species described by Dr. Leach, in his *Zoological Miscellany*, in 1817, under the name of *Ixa inermis*, but which Professor Bell, in his monograph of the family published in the *Linnean Transactions* for 1855, considers to be (as with several other forms described as distinct species) a variety only of the *Ixa cylindra* of Fabricius. In the dozen specimens which had come under Professor Bell's observation, he found varieties agreeing well with the supposed species, and

connecting the extreme forms, which without them would appear to be totally distinct. The peculiarity of the genus is the great lateral diameter of the carapace, and its prolongation into an obtuse spine-like process on either side. The longitudinal diameter of the specimen exhibited is three-quarters of an inch, the lateral diameter being nearly two inches, each spine measuring half an inch, and the body part little more than three-quarters. Like the specimen figured by Leach, the limbs are wanting. The supposed habitat of the species is the Indian Ocean.

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A paper was then read by Dr. Nevins.

ON THE DICTIONARY OF A NATION,  
AS ILLUSTRATING NATIONAL CHARACTER AND HISTORY.

By J. BIRKBECK NEVINS, M.D. LOND., V. P.

One of the greatest difficulties experienced by a schoolboy, in his early attempts to use the Latin Dictionary, arises from the number of meanings attached to the same word—meanings which have often little apparent connection, and are sometimes contradictory of one another. Take, for example, the word "*Opus*," and he finds, amongst other meanings—

Work,	Manufacture,	Need,
Pains,	Act or deed,	Occasion,
Difficulty,	Fortification,	Necessary,
Business,	A thing,	Expedient.

Now, an intelligent reader, with some experience of life and language, will readily trace the connection between these several meanings; but the schoolboy does not possess the necessary knowledge, and often selects a meaning at random, or takes the first that presents itself. But besides the number of meanings for the same word in the same dictionary, there is another circumstance to be noticed, which will form the subject of the present paper—viz., the diversity of meanings for the same word in the dictionaries of different nations; a diversity which is not to be accounted for by the natural growth of one meaning out of another, as in the case of *opus*, adduced above, but which arises, in a curious and interesting manner, from the character of the people, and the history of the nation to which the dictionary belongs.

In the following remarks, I propose to illustrate this connection with reference to a few words in common use, and

shew how much of national character and history may be learnt from opening, almost at random, any moderately good dictionary. I have confined myself to the four languages, Greek, Latin, Hebrew, and English, because differences in their dictionaries are more marked and characteristic than in those of modern languages, and because the field proved to be so wide, when the attempt was made to include also, German, French, Italian, and Spanish, that I was compelled to limit it, or relinquish the work altogether.

The first word which brought this subject before my notice was the Greek for "stranger:"

ξένος:	A Stranger,	A Host,
	A Foreigner,	A Guest.

It appeared as if there must be something in the Greek character to account for these meanings, for there is no necessary connection between them; and this is indeed strongly brought out on turning to the Latin dictionary; for, so far from the stranger implying a host or a guest in that language, it implies an enemy—a person to be kicked out of doors as soon as may be; for

Hostis means primarily "A Stranger,"  
and secondarily, "An Enemy, not a Guest."

On turning to the dictionary, to see if there is no less uncivil Latin word for stranger, we find *Advena*, which just expresses what its etymology implies, "One who has come," "a stranger," "a foreigner," but nothing whatever beyond this. But the Latin for the adjective "strange" throws additional light upon the subject; for whilst the Greek for the word means also *novel*, *wonderful*, *hospitable*, *kind to strangers*, the Latin *Alienus* is translated in the dictionary—

Foreign, none of our country or kin,  
Alien,  
Disagreeable,  
Absurd,  
Hurtful, offensive.

There is nothing here implying any necessary connection between being a stranger, and receiving hospitable entertainment.

I was therefore led to inquire whether the Roman character or history might furnish the clue to these various meanings in their language, whilst a different character amongst the Greeks might also account for the very different meanings which they attached to the same word. It soon became an object of interest to see whether the dictionaries of other nations agreed with either or neither of them; and, by the assistance of my friend Dr. Ginsburg, I have been enabled to compare the Hebrew lexicon with them; whilst I have also taken our own English dictionary, that we may see how far our national character is reflected in it likewise. In order that the points of resemblance and contrast may be most strikingly presented to the mind, the words from the four dictionaries will be placed in parallel columns.

#### STRANGER, AND ITS DERIVATIVES.

Greek.	Latin.	Hebrew.	English.
ξένος	Hostis,	Nachri,	Foreigner,
Stranger,	Stranger,	Unknown,	One unknown, and therefore
Foreigner,	Enemy,	Stranger,	to be treated as an enemy.
Guest,	Advena (one come	Foreigner.	A Guest.
Host.	from a distance),		One not admitted to fellow-
	Simply a stranger.		ship, but to be adjured.
			Substitute for "Sir," as a form
			of address in America.

English verb : to alienate or estrange (never used in a good sense).

„ adjective : strange, odd, irregular, disagreeable.

If now we turn our attention to the character and institutions of these several nations, we shall find how curiously they correspond with the differences observed in their dictionaries. There is probably no sketch of Greek manners so graphic and familiar to us as St. Luke's description of the Athenians; "for all the Athenians and strangers which were there spent their time in nothing else, but either to tell or to

hear some new thing." Now to a person of this gossiping disposition, a stranger is a perfect godsend; for the old and twice-told tale will be new to him, and he will be welcomed as a hearer; or he will have his own story to relate, and will be equally welcome as a talker; and in one or other of these capacities he will be gladly received as a guest, whilst his entertainer becomes the host, as a natural result. The stranger, the guest, and the host are thus naturally connected together, by the Greek love of hearing or telling some new thing. But yet further: the various Greek cities formed almost so many different nations, for they were almost constantly at war with each other, striving for the headship; and yet they were all so closely connected by the tie of a common language and ancestry, as to make them into one nation, when a danger from a Barbarian, that is a foreign foe, threatened to overwhelm any of them. They were therefore, in one sense, almost constantly strangers one to another; and yet, in another, they were united by such a family bond, that a Greek was welcome to a Greek, and the stranger was sure of finding himself a guest, with a willing host.

This mixed relationship caused a peculiar feature in the national institutions; for, in the various cities of Greece, there was a special functionary, called the Proxenos, whose duty it was to entertain the citizens coming from other Greek states; and the honour of holding this office was so eagerly desired, that Plutarch relates, that a contest upon the subject between Alcibiades and Nicias was the principal cause of the renewal of war between the Athenians and the Spartans, who had recently made a treaty of peace.

If, however, we turn from the Greek to the Roman, we find a marked contrast in the national history and the national character, which readily explains why the Roman regarded the stranger as an enemy, or at any rate as an alien and an intruder. The history of Rome is that of an individual city,

fighting its way from a very insignificant beginning, until it became the mistress of the known world: and although it experienced many reverses, and often had to submit to compromises with its opponents, still in the long run it retained the supremacy, and Rome was the heart, as well as the head, of the state. The citizen of Rome was therefore, as a rule, in the ascendant; and he naturally engrossed the honours and the advantages which flowed from her superior power. It is true that he had, from time to time, to admit others than native born Romans to these privileges, but this was only the price paid for some advantage to accrue to the Roman for so doing; and those who received the privileges valued themselves highly as being Roman citizens. "With a great price obtained I this freedom," "But I was free born," is an illustration with which we are all familiar from our youth.

The Roman therefore, in his early contests for the mastery of Italy, learnt to look upon every stranger as a *hostis*—an enemy to be overcome; and at a later period, when his own supremacy was established, the stranger was still an *alienus*—one who had no right to Roman privileges, and a disagreeable intruder if he made attempts to become possessed of them.

Our own dictionary indicates a character of exclusiveness like that of the Roman, rather than one of spontaneous hospitality like that of the Greek; although it is true that "guest" is one of the meanings which Johnson gives for "stranger." But if we examine the quotations from standard writers by which he justifies his meanings, we find that, in the only authority which he adduces for the sense of the word, the stranger was known to be worth entertaining; and it is not clear that, although he was an angel, if he had come like the travellers in Parnell's "Hermit," he might not have

experienced the same churlish reception that the disguised angel encountered in that well known fable.

“He will vouchsafe  
This day to be our *guest*. Bring forth and pour  
Abundance, fit to honour and receive  
Our heavenly *stranger*.”—*Milton*.

It cannot, however, be said that England is a petty state, that has always been at war for the mastery, like Rome; and we must therefore look for some other cause in her history or constitution to account for the national dislike for strangers indicated by her dictionary. That this feeling does exist, not only in cities, where municipal and other honours are considered to be the exclusive right of the townsmen, but also in the remotest valleys of our land, where there are no prizes to be striven for, is shewn both by Johnson's illustrative quotation, and by the barbarous saying, attributed indifferently to the inhabitants of the Lancashire and of the Yorkshire valleys. Shylock represents the city feeling, when he says—

. “You did void your rheum upon my beard,  
And foot me, as you spurn a stranger out  
Over your threshold!”

And the Tim Bobbin, who asks his fellow: “Bill, does thou know who that is?” “No.” “Why, then, cobble a stone at him;” expresses the country feeling in an unmistakable manner. Whence then does our national dislike for strangers arise? It may perhaps be found in our insular position; but I question much whether jealousy of foreigners has any share in producing the dislike of strangers, which is present in parts of the country far removed from the sea, and where the idea of a foreigner must be of the vaguest and most indistinct nature. Besides which, the Greeks were as much insular in their habits as ourselves; and inhospitality to strangers is not a special characteristic of Islanders in other parts of the world.

I believe that it is mainly to be attributed to the operation of our Poor Laws; and that it has arisen from them in a very natural manner. When the legislature first thought fit to make the support of its own poor and destitute inhabitants compulsory upon the land, instead of leaving them to casual or spontaneous charity, it adopted the territorial division which was familiar to the nation, and decreed that each parish should be compelled to provide for its own poor. And whilst the means of transit from one part of the country to another were very defective, and there was but little migration from place to place, this arrangement was convenient, and on the whole worked well enough. But when a thickly peopled parish sent its able-bodied labourers into a more thinly peopled district, their strength and services indeed were valuable, but there was the possibility that the new comers might become a burden upon the adopted parish, through sickness or old age: and the law was obliged to settle under what circumstances the old parish should cease to be responsible, and the new one should become chargeable in case of need. The fear of future expense on this score eventually settled deep in the English heart, and became a constant source of jealousy against people from a distant, or even from an adjoining parish; and a person who might by possibility become eventually chargeable, became on this account a stranger and an enemy, although in other respects he might be a well known, upright, and valuable workman or neighbour. Every non-parishioner thus became a "stranger," and, as an Englishman naturally takes troubles before they come, he became an enemy also—a person to be spurned from our threshold, or stoned from our borders.

The form which this fear has assumed in some of our agricultural counties has been productive of great evil, both to masters and servants. Twelve months' unbroken servitude entitled the servant to support from the parish in which the

service was performed; and in order to prevent this chargeability from coming into effect, it became the custom for farmers to engage their farm servants for a year all but a day. At the end of this time the service terminated, and the labourer had no claim upon his adopted parish, even if he was re-engaged after an interval of only a single day. Convenience gradually caused all the servants to leave at the time of year when there was some fair or gathering, which would bring employers and employed mutually together; and in some parts of the country it is still the case, that at a certain period of the year every house is destitute of servants for a longer or shorter period; and even if the farmers' domestics return at the expiration of this period, the family must be content to do without servants as best it can, during the interregnum. The precaution which was thus taken by the master to guard against a possible future expense, arising from their aged or infirm servants, has recoiled upon themselves; and no one can estimate the evil fully, until he has experienced it himself, or in the family of some one nearly connected with him.

This evil both to masters and servants has now been materially removed, by various alterations of the Poor Laws; and one which has very recently come into effect will probably reduce it to a minimum, by having made a large district, embracing many parishes, chargeable with the poor of the whole, instead of making it the interest of each parish to get rid of as many of the poorer inhabitants as possible, and the policy of each to stone out all new comers from their territory.

If we now turn to the Hebrew, we meet with a curious circumstance in that dictionary. Not only does stranger mean simply an unknown person, a stranger, neither friend nor enemy, guest nor intruder, but there is no word in that language which implies Host; neither is there any word to indicate Guest; and yet the hospitality of the Jew is a most

striking feature in his character; and there are perhaps few things upon which more stress is laid by Moses, in his summing up of the law in Deuteronomy, than the care and kindness which are to be shown to the stranger, simply because he is a stranger. "The Lord your God is God of gods, and Lord of lords, and loveth the stranger, in giving him food and raiment. Love ye therefore the stranger; for ye were strangers in the land of Egypt." Deut. x. 17—19. "And thou shalt keep the feast, and thou shalt rejoice before the LORD thy God, thou, and thy son, and thy Levite, and thy *stranger*, and the fatherless and the widow; and thou shalt remember that thou wast a bondman in the land of Egypt." —xvi. 11, 12. "Thou shalt not abhor an Egyptian; because thou wast a *stranger* in his land."—xxiii. 7. "Thou shalt not oppress an hired servant that is poor, whether he be of thy brethren, or of thy strangers that are in thy land. Thou shalt not pervert the judgment of the stranger: but thou shalt remember that thou wast a bondman in Egypt, and the LORD thy God redeemed thee thence: therefore I command thee to do this thing. Thou shalt leave thy gleanings in the field for the stranger; that the LORD thy God may bless thee." —xxiv. 14, to the end.

These, and many similar injunctions, all based upon the same grand principle, that Israel was a stranger in the land of Egypt and the LORD redeemed him from thence, took such deep root in the heart of the nation, that every man was a *Host*, simply because he was a Jew; and there was no necessity for a special word, because the thing was implied in the very fact of his belonging to that nation. And if the Jew as a matter of course was a host, the stranger was a guest by the same rule; and the words Jew and stranger, therefore, contained all that was requisite on the subject.

Having illustrated the purpose of this paper at so much length, in the foregoing remarks upon the word stranger, a

much briefer allusion to some other words\* on our list will indicate how they also illustrate national character; and the next to be noticed, is not less diverse in its meanings than the one which has been so fully examined.

#### LEISURE, AND ITS DERIVATIVES.

Greek.	Latin	[Post-Biblical] Hebrew.	English.
Σχολη	Otium,	Panai,	Freedom from business
N. Leisure,	N. Leisure,	Time to turn round	or hurry.
Study,	Retirement from	and look about	Vacancy of mind.
School.	public business,	one.	Time made to be convenient, which is not naturally so.
	Peace, public tranquillity,		
	Idleness.		
Adj. Inactive,	Adj. Free from business,		
Studious,	Secure,		
Puerile,	That is in no		
Silly.	public post or employment,		
A Wiseacre.	Peaceable,		
	Sedate, calm,		
	Idle, of no value.		

The Greek love of art and science was so deeply engrafted in his nature, that he assumed, as a matter of course, that as soon as a man had leisure for so doing, he would at once devote himself to study; and leisure and study was accordingly synonymous with him. His sociable and gossiping disposition indisposed him, however, for solitary study, and a school was therefore naturally associated with the idea of study, and the same word expressed all three. As, however, it was

\* The words which have been examined, in preparing this paper, have sometimes a natural connection with one another, and at other times have been taken almost at random, or as their interest happened to become apparent. The subjects of the paper are, Stranger, Leisure, Art, Work, Rejoice, and Victory: but many others which have been examined have possessed equal interest. The method adopted has been to take common English words of well known signification, and find their nearest representatives in the three selected languages. The Greek and Latin offered no difficulties in this respect: but as I am not acquainted with Hebrew, I am indebted to Dr. Ginsburg for telling me what is the proper Hebrew representative of the words under review. He then found the words in the Hebrew Lexicon, and left me to copy the English meanings given for them. Beyond this he is not responsible, and he is not accountable for any erroneous inferences drawn from the Hebrew dictionary.

not the characteristic of the Greek mind to turn everything to a practical issue, the adjectival form of the word implies inactive, as well as studious, and the result of this non-practical method of study is "puerility;" and the simply studious man was apt to become not only puerile, but "silly," to be transformed, in short, into the wiseacre.

How completely study formed an essential part of the Greek idea of life is shown by an anecdote related by Plutarch, in his life of Themistocles. "Most of the Athenians removed their parents, wives, and children to Trœzen, where they were received with eager goodwill by the Trœzenians; who passed a vote that they should be maintained at the public charge, and schoolmasters paid to instruct the children." The English idea of life is far removed from the Greek in this respect. It was not until the nineteenth (!) century that England began to bestir herself to send the children of her poor to school; and although she annually votes a large sum for the purpose, it would seem to be with reluctance rather than spontaneously; and, during a recent Parliamentary enquiry, we have seen the acting head of the department apparently rejoicing that he had hit upon a plan of imposing such conditions as school-managers would not accept! albeit the children, as a result, were without the education which it was the special business of his department to promote.

The Roman idea of life and its purpose was very different from that of the Greek. With him stern work and practical ends were the absorbing idea of life; and compulsory duties performed for the state were his experience from an early age. Military duty was incumbent upon all, and proved a stern schoolmaster; and when he thought of rewards, the municipal and military honours, which were open to Roman citizens alone, were the prizes that he coveted. Leisure with him, therefore, meant "retirement from public business," whether this was of an honorary or compulsory nature; the

idea of study in connection with leisure never appears to have entered his iron soul.\* War with its accompaniments was, in his conception, the business of life; and his word for leisure therefore implies "peace—public tranquillity;" his notion of a state of leisure was simply that of "idleness."

In the adjectival form the above ideas are carried still further, for "free from business," is followed in the Latin dictionary by "that is in no public post or employment," "peaceable and calm;" and the Roman contempt for an unoccupied man culminates in the scornful combination, "idle, of no value." The man who did nothing for *Respublica* was a worthless, idle fellow.

The Hebrew conception of leisure is singular—"Time to turn round, and look about one;" but this curious translation is illustrative of Hebrew character and history, as the last was of Roman. By the Mosaic law holidays in great numbers were prescribed as part of their religion; and there have been few people in whose national life festivals and holidays occupied so large a portion of time. The Jew, therefore, was not under the constant pressure of work, either public or private; and so great a part of his time was free from business, that leisure, as an exceptional condition, was unknown to him, and he had no word which conveyed the idea. He was also, to a great extent, shut out from public office, for many, we may almost say most, of the duties of the state, were confined to the tribe of Levi; and whilst the state of national blessedness to which the Jew looked was one in which every man should sit secure under his own vine and his own figtree, the municipal office of the Roman had no charm for him; and study, beyond that of the law, was not a primary wish of the agricultural mind of the country Jew. He was therefore seldom oppressed by business, and the nearest idea that he appears to have formed of leisure, was a state in which a man took his time in turning himself round.

\* Ovid. *Fasti*, lib. iii. vv. 829, 830.

The English dictionary indicates a national character, closely resembling the Roman with respect to leisure. Our system of self-government renders Englishmen generally liable to the compulsory performance of many public duties, which are not always agreeable; and the resident in the country well knows the discomfort of having to be overseer, or poor law guardian, rate layer, or collector, surveyor of highways, or some other of the many offices which our parochial system imposes upon the ratepayers; besides the liability to serve upon juries, or to be balloted into the militia, &c., which he shares with residents in the town. Compulsory public duty is therefore a familiar idea to an Englishmen, from which in many cases he becomes free when he attains a certain age: after which, he promises himself that he will be a man of leisure. But the unoccupied Englishman is not a natural Englishman, and "vacancy of mind" soon ensues upon his want of business, and forms his next definition of leisure. As Dryden expresses it, "You may enjoy your quiet in a garden, where you have not only the leisure of thinking, but the pleasure to think of nothing."

It is evident, however, that occupation is so familiar to the English mind that even leisure itself has to be *made*, like any other difficult matter, and does not exist naturally: for Shakspeare, as the exponent of the English character, makes his spokesman say, "We'll *make* our *leisure* to attend on yours."

#### ART, AND ITS DERIVATIVES.

When we consider the importance attached to study by the Greeks, and the undying reputation gained by their works of art, we shall perhaps be surprised at finding the unworthy senses which they, as well as the Romans, attached to the word by which they designated both an artificer, and the skill which he exercised.

Greek.	Latin.	Hebrew.	English.
Τεχνη	Ars,	Aman (from	Has some words derived from
Trade,	Originaliy and	aman, to	"Ars" which have exclusively
Business,	properly Power,	build up),	a bad signification, whilst it
Art, skill,	Art,	Workman,	has others—viz., those relating
Stratagem,	Skill,	Architect,	to "work,"—which have exclu-
Fraud,	Trade,	Artist,	sively a good meaning. Art
Artist,	Handicraft,	No bad sense	itself has mixed meanings,
Mechanic,	Cunning,	whatever.	good and bad, like its original;
Deceiver,	Deceit,		but whilst artful and artifice
Adj. Ingenious,	An Artist,		have almost exclusively bad
Skilful,	A Workman,		meanings, artificer, a work-
Deceptive.	A cunning fellow,		man, is exclusively good; and
	Workmanship,		artificial is good as applied to
	A thing made,		things, but bad when it relates
	An Artificer.		to the mind or character. The
			English mind recognises the
			nobility and worth of work and
			workmen, and separates their
			title from all that is unworthy,
			whilst it has no admiration as
			a nation for "trick or clever
			cunning," but applies to it the
			exclusively bad sense attached
			to artful and artifice. Art, so
			far as it may be considered a
			moral quality, is looked upon
			with disfavour; whilst so far
			as it relates to work and work-
			men, it has an exclusively
			honourable signification.

The unfavourable meanings which were associated with the words art and artificer by the Greek and Roman probably arose from their habit of employing slaves as their principal skilled workmen; from which circumstance it happened that works of art were regarded as slave labour, and the cunning and deceit which naturally result from the condition of slavery, were associated in the minds of these nations, not with the artisan because he was a slave, but with the slave because he was an artificer.

A curious illustration of the light esteem in which the possessor of art was held, even in Greece, is contained in the following extract from the introduction to *Plutarch's life of Pericles*:—"No generous-minded young man ever wished, at

the sight of the statue of Jupiter at Pisa, to be a Phidias; or on seeing that of Juno at Argos, to be a Polycletus; or felt induced by the pleasure in their poems, to wish to be an Anacreon, or Philetus, or Archilochus. It does not follow, if a piece of work pleases by its beauty, that he who made it deserves our respect."

If, however, from the Greek and Roman (who, from chiefly employing slaves as workmen and artists, looked upon their kind of work as beneath the dignity of a free man) we turn to the Jew, we find at once a difference which sufficiently accounts for the absence of unworthy meanings in the Hebrew dictionary. After the description of the Ark, and the priests' garments, and of other matters connected with religious service, has been given at great length in the book of Exodus, we come upon the following remarkable passage: "And the Lord spake unto Moses, saying, See, I have called by name Bezaleel the son of Uri, . . . and I have filled him with the spirit of God, in wisdom, . . . and in all manner of workmanship, to devise cunning works, and to work in gold, and in brass, and in cutting of [precious] stones to set them, and in carving of timber, to work in all manner of workmanship. . . . and in the hearts of all that are wise-hearted I have put wisdom, that they may make all that I have commanded thee; the tabernacle of the congregation, and the ark . . . and the altar with his furniture, . . . according to all that I have commanded thee shall they do." *Exodus xxxi. 1—11.*

The Greek and Roman regarded the artisan as a slave, and therefore naturally as a deceiver; whilst the Jew looked upon him as one who was filled with the spirit of God and of wisdom; and the workman was honourable, and his work esteemed, for they were the instrument and the offspring of the Almighty, to which no unworthy idea could be attached, like that of deceit or of guile; qualities which would be hateful to the God of truth and uprightness.

To inculcate the dignity of all honest labour, the Talmud relates the following story: Simon, a scavenger (the lowest occupation apparently in the social scale), told the celebrated Rabbi Jochanan ben Zakki, the Lord Bacon of his day, "I am as great as you are, and accomplish as much." "How so?" "You make public offices your business, and my labours also are devoted to public benefit; for I clean pits and cisterns, that you may have your wells clean, for baptisms and drinking." "Truly you are right," said the Rabbi. Hence the greatest Jewish Rabbis learnt a craft, and laboured with their own hands.\*

#### WORK, AND ITS DERIVATIVES.

The transition was easy and natural from study, to art as one of the highest results of study; and we pass no less naturally from art to work in general, which is represented by the Greek *Εργον*, the Latin *Opus*, and the Hebrew word *Melachah*, amongst the various meanings of which words are to be found many curious and instructive differences.

Greek.	Latin.	Hebrew.	English.
<i>Εργον</i>	<i>Opus</i> ,	<i>Melachah</i> ,	Labour, &c., but no-
Work,	Work,	Primarily ministry,	thing implying pain.
Toil, task, diffi-	Labour, pains,	Service on which one	The other noticeable
culty,	Business,	is sent,	terms are "embroi-
Agriculture,	Act or deed, but	Work, labour, busi-	dery," as if it were
{ Exploit,	no reference to	ness; but nothing	"work" <i>par excellence</i> .
{ Crime,	"crime,"	like pains or toil,	Anything upon which
{ Need,	Fortification,	implying that work	one is engaged— <i>e. g.</i>
{ Duty,	{ Necessary,	is grievous; or like	In rising she dropped
Plural:—Acquire-	{ Expedient,	crime or sorrow,	her work.— <i>Johnson's</i>
ments,	Plural: Opera,	implying that it	<i>Dictionary</i> .
Sorrows,	Public employments.	results in evil.	Awkward perform-
Property.			ance: scornful term
			for pretension, or
			boasting; <i>e. g.</i> "What
			a piece of work he
			makes about it;" say
			his almsgiving, his
			family descent, or the
			occupation on which
			he is engaged.

\* See Dr. Ginsburg's *Art. Labour*, in *Kitto's Cyc. Bib. Lit.*, new edition.

The most noticeable feature of the varied meanings for the Greek word, is the association of exploit, as a special form of work, with crime as its companion, which is so constantly illustrated in the history of the Greek internal dissensions and wars; and the further remarkable association of acquirements and sorrows, as the result of work. To the reader of Greek history or biography, illustrations of this connection will be familiar; for many instances will occur to his recollection, in which the elevation gained by great men, in consequence of works done for the good of the State, was the very cause of their subsequent sorrow and ruin, arising from the democratic impatience of individual superiority. But it would be difficult to find an illustration more concise and general than what is supplied by Plutarch, in his life of Alcibiades. On one occasion popular jealousy was roused, and there was a project of banishing him from Athens. By a clever manœuvre, however, he caused the vote of expulsion to fall upon a low buffoon, named Hyperbolus, instead of himself; upon which Plutarch makes the following comment; "This sentence of ten years' banishment, called ostracism, was made use of to humiliate, and drive out of the city, such citizens as at any time outdid the rest in credit and power; indulging, not so much perhaps their apprehensions as their jealousies in this way, for no mean or obscure person had ever fallen under the punishment; so that the comic poet, speaking of Hyperbolus, might well say,

"The man deserved the fate; deny't who can.  
 Yes; but the fate did not deserve the man.  
 Not for the like of him and his slave-brands  
 Did Athens put the shell into our hands."

In the Roman history we have examples of banishment, and rasing of great men's houses; but in these cases, it was not simple jealousy, but fear, and a real or virtual judicial

sentence, which decreed the punishment. Macaulay has embodied the Roman feeling, with reference to its great or powerful citizens, in his lay of Virginia, where he makes the excited populace, even whilst stoning Appius Claudius to death, recount the services rendered to the State by the very families, whose names they are recalling with somewhat of hatred for the characteristics associated with them.

“ Though the great houses love us not, we own, to do them right,  
 That the great houses, all save one, have borne them well in fight.  
 Still Caius of Corioli, his triumphs and his wrongs,  
 His vengeance and his mercy, live in our camp-fire songs.  
 Beneath the yoke of Furius oft have Gaul and Tuscan bowed,  
 And Rome may view the pride of him of whom herself is proud.  
 A Cossus, like a wild cat, springs ever at the face,  
 A Fabius rushes, like a boar, against the shouting chase.”

In the Roman mind, the idea of work has a higher and more honourable place than we can discern in that of Greece; for whilst the Latin dictionary agrees with the Greek in adding toil and difficulty to the meanings of work, it differs from it in associating also the senses of earnestness and benefit, which we do not find amongst the Greek meanings. Thus “*Omnī opere*,” “with all your heart,” will be sought for in vain, as a derivative phrase from “*εργον* ;” and whilst the Greek, as well as the Roman, has “duty” as an adjunct of “work,” the Roman adds “expedient,” as well as necessary, as if whatever was a duty was also beneficial; which is not found amongst the Greek senses. “Compulsion,” “force,” “distress,” “affliction,” are the meanings of the Greek *αναγκη*, “necessity;” but we find nothing noble or beneficial associated with them; whilst its Latin representative, *necessitas*, in addition to “necessity, or fate,” means also “constraint from a bond of relationship, or tie of friendship,” and also the characteristic Roman idea of duty to the State, “office,” “duty,” “service.”

The Hebrew idea of Work has been sufficiently dwelt upon in the previous section on "Art;" it will be sufficient to point out that "duty," "service on which one is sent," is the foundation of the Jewish idea of work, and there is nothing in the Hebrew meanings of the word, like pain or toil, or anything that implies that work is grievous, or associated with crime.

Our own dictionary exhibits some curious differences when compared with the others; for whilst "agriculture" and "military operations" are the forms of work specially signified by *opus* and *εργον*, embroidery or needlework is described as work *par excellence*, in our own dictionary. War and tillage were the two grand occupations of the Greek and Roman man; whilst the woman was too generally a toy or a slave, legally or practically, in both these nations. But amongst ourselves, the German and Christian characteristic of reverence for woman is reflected in our dictionary; and the embroidery, for which our Saxon ancestors were noted, and its representative needlework in the present day, are honoured with the special title of work; a word, which of itself would not call before the English mind the idea of fortification, or even of agriculture, unless accompanied by some such prefix as rural, or military.

The English dictionary would lead us to attribute earnestness to the manner in which everything is done, however trivial it may be in itself; for the quotation already introduced, "In rising she dropped her work," seems to imply that, "whatever our hands find to do, we do it with our might," and therefore worthily bestow upon it the title of work. The English mind recognises the dignity of work so fully, that it is impatient at hearing this honourable title claimed for what is unworthy of it; and therefore, whilst it bestows the name upon everything, however small, which is a legitimate occupation, it resents its application to what does not deserve it, and, as our quotation shows, it converts

the word into an epithet of scorn when it is assumed by mere pretension or fuss.

#### TO REJOICE.

The national differences exhibited in the various meanings of this word are scarcely less curious than those already reviewed.

Greek.	Latin.
<i>Χαίρω,</i>	<i>Gaudeo,</i>
To rejoice or delight in,	To rejoice in or be glad, but
To rejoice <i>with</i> , or to	not to rejoice <i>with</i> .
congratulate.	Imperative form :
Imperative form :	Is no form of salutation.
Good-morrow, or	
Good luck to you.	

The Greek was an impulsive, sociable fellow, somewhat like the Irishman of the present day, always ready for either a fight or a feast; and when he was in good spirits himself, he could not help saying "Good luck", also to his neighbour; but the Roman had no idea of general sociability. He would be magnanimous when his foe had fairly given in, and would allow him to rejoice if he liked under his own vine or figtree, provided it was of Roman planting; but he had no notion of offering spontaneously the privileges and matters for rejoicing, which his inherent Roman selfishness made him only yield for their full price in some form or other.

The Hebrew words for rejoice are very numerous, and they also imply,—what is not found in either the Greek or Roman words,—laughter, smiling, dancing, and other outward manifestations of joy; for the Jews were a joyous race, and their festivals formed a large portion of their yearly life. Even in the present day, where they are sufficiently numerous to constitute a society, or an approach to a nation, they retain this characteristic; and the Jew, however subdued in his manifestations before strangers, does not conceal or keep down the joyous expressions of his feelings when amongst his own people. Causing others to be glad as well as himself is likewise an essential form of all the Hebrew words for rejoice.

The English dictionary exhibits the double meaning of rejoicing ourselves, and making others joyous also ; for the verb is both active and intransitive in our language.

#### VICTORY.

The last word which will be commented upon in detail is Victory ; in the meanings of which the English dictionary exhibits a feature which, compared with the others, may furnish material for thought.

Greek.	Latin.	Hebrew.	English.
Νικη (probably from νη εικυ, not to yield), Conquest, Victory.	Victoria (from vinco, to conquer), Victory, and The Goddess of Victory.	Jeshuah (primarily deliverance), Help, Salvation, Victory: Nothing implying triumph over others ; but rather that the Hebrew was saved from others.	Victory, Triumph over others.

As a nation we appear to shew less signs than the heathen, and still less than the Jews, of believing, in our heart of hearts, that the fate of a battle is decided by an overruling Providence, however much we may consider it the proper thing to say so in our formal thanksgivings for victory. The Romans had but one word for the result, and the goddess by whose aid it was brought about ; and although the Greek dictionary does not bring this strongly into light, the idea was deeply grafted in the Greek mind. It is interesting to notice how Plutarch again and again falls back upon this theme, in his life of one of his most favourite characters — Timoleon. “Some God or other, it might seem, accompanied all his following actions, as though it were on purpose to add grace and ornament to his personal virtues.” “Others, letting their attention turn rather to the changes and revolutions of this life, could not but see in them a proof of the strength and potency with which divine

and unseen causes operate amidst the weakness of human and visible things." "And this [that the city came to be taken by storm, &c.] we must in justice ascribe to the valour of the assailants, and the conduct of their general; but that not so much as a man of the Corinthians was either slain or wounded in the action, this the good Fortune of Timoleon seems to challenge for her own work; as though, in a sort of rivalry with his own personal exertions, she made it her aim to exceed and obscure his actions by her favours; so that those who heard him commended for his noble deeds might rather admire the happiness than the merit of them." And—omitting many others in a like strain—we may conclude by what is almost his own concluding sentence: "The noble and glorious achievements of Timoleon compel our unbiassed judgment to pronounce them the work, not indeed of Fortune, but of fortunate merit; though he himself ascribed his successes to the sole favour of Fortune, and, both in his private letters and public speeches, would say *that he was thankful to God, who, designing to save Sicily, was pleased to honour him with the name of its deliverance.*"

In the Hebrew National Songs the characteristics of their word for victory are strikingly apparent:—

"They got not the land in possession through their own sword, neither did their own arm save them; but thy right hand, and thine arm, and the light of thy countenance, because thou hadst a favour unto them."

"I will not trust in my bow; neither shall my sword save me; but thou hast saved us from our enemies, and hast put them to shame that hated us."

Self depreciation is here the first thought of the victorious Jews—salvation, or deliverance, is the second; and when we do meet with a song of triumph, it is not in the Rule Britannia strain, but it is the Lord Jehovah who has triumphed gloriously.

"I will sing unto the Lord, for he hath triumphed gloriously : the horse and his rider hath he thrown into the sea. . . Thy right hand, O Lord, hath dashed in pieces the enemy."

And Miriam, with her chorus of women, takes up the strain :

"Sing ye to the Lord, for he hath triumphed gloriously : the horse and his rider hath he thrown into the sea."

If this view of victory had been habitual to the English mind also, the celebrated order of Cromwell, "Say your prayers, and keep your powder dry," would never have become celebrated, or inscribed to him alone ; for it would have been the standing rule of the army, and Cromwell would have no more monopolised the credit of it, than Moses or David of such songs as those just quoted.

The foregoing words are but a few of those which have proved fertile in interest during their examination ; but if they should serve to point out an additional source of pleasure to others, in the study of what is sometimes thought to be a dry book—viz., a National Dictionary—they will have accomplished their object.

## TENTH ORDINARY MEETING,

ROYAL INSTITUTION, March 6th, 1865.

J. A. PICTON, Esq., F.S.A., PRESIDENT, in the Chair.

The Rev. E. Hassan and Mr. John Hey, M.R.C.S., were balloted for, and duly elected members.

Mr. T. J. Moore exhibited two specimens of the Japanese Glass Coral (*Hyalonema Sieboldi* of Gray), lately added to the Derby Museum. Mr. Moore also drew attention to a statement which has been lately published in a Manchester paper, and thence been copied in Liverpool papers and in the *Times*. It related to a fraud stated to have been practised by some excavators at the Macclesfield New Cemetery, by foisting cleverly manipulated recent shells upon collectors as genuine fossils, and contained a statement by one of the workmen, "that they had deceived the museums of London, Manchester, and Liverpool,"—a statement probably without any foundation whatever. Mr. Plant had exposed the imposition at Manchester, and no specimens whatever of the kind referred to had found their way to the Derby Museum, or, as he was requested to say by Mr. Turner, to that of the Royal Institution. The statement rested solely on the authority of one of the workmen, and those who would not stick at a fraud would scarcely adhere to the truth relating to it. Such an assertion would not readily receive credence among geologists, but might be supposed by others to have some foundation; hence it became desirable to give it a full and direct contradiction.

Mr. Nisbet exhibited some cones of *Banksia* from New Holland.

Dr. Edwards called the attention of the society to the figures produced by grains of sand upon vibrating plates; and also to some remarkable experiments with upright wires, which formed definite figures at their vibrating extremities, under the influence of special notes.

Dr. Collingwood, in illustration of the subject, referred to some recent discoveries of the auditory hairs of Crustacea, which supplemented over various parts of the body the special apparatus of the ear. These hairs were in organic connexion with nervous filaments, and were shown to vibrate only under the influence of special notes.

Mr. Gray made some remarks in reference to some criticisms upon his paper on the Arithmetic of Building Societies.

A paper was then read of which the following is an abstract :—

## ON GUN COTTON AND OTHER XYLOIDS,

BY J. BAKER EDWARDS, PH.D., F.C.S., V.P.

The class of substances called Xyloids are produced by the action of Nitric acid upon vegetable bodies containing Hydrogen; and their formation is due to the removal of a portion of Hydrogen, and the substitution of a like number of atoms of Nitrous acid ( $\text{N O}_4$ ). Substitution compounds of this type are formed from Sugar, Gum, Starch, Cotton, Saw-dust, &c., all of which are highly combustible or explosive.

Thus we have from Starch a white powder called Xyloidine, thus produced—

Starch ( $\text{C}_{24} \text{H}_{20} \text{O}_{20}$ ) + Nitric acid ( $\text{N O}_5$ ), produces—

1.—*Xyloidine* ( $\text{C}_{24} \text{H}_{19} \text{N O}_4 \text{O}_{20}$ ) +  $\text{H O}$ .

Sugar ( $\text{C}_{24} \text{H}_{28} \text{O}_{28}$ ) + Nitric acid ( $\text{N O}_5$ ), produces—

2.—*Saccharöine* ( $\text{C}_{24} \text{H}_{25} (3 \text{N O}_4) \text{O}_{28}$ ) +  $3 \text{H O}$ .

Cotton, ( $\text{C}_{24} \text{H}_{20} \text{O}_{20} + \text{N O}_5$ ) produces two compounds—

3.—*Pyroxiline, a*, ( $\text{C}_{24} \text{H}_{17} (3 \text{N O}_4) \text{O}_{20}$ ) +  $3 \text{H O}$ .

*Pyroxiline, b*, ( $\text{C}_{24} \text{H}_{15} (5 \text{N O}_4) \text{O}_{20}$ ) +  $5 \text{H O}$ .

Glycerine ( $\text{C}_6 \text{H}_8 \text{O}_6$ ), produces with  $\text{N O}_5$ —

4.—*Nitroglycerine*, ( $\text{C}_6 \text{H}_6 (2 \text{N O}_4) \text{O}_6$ ) +  $2 \text{H O}$ .

Benzene, a pure hydro-carbon ( $\text{C}_{12} \text{H}$ ), yields—

5.—*Nitrobenzene*, ( $\text{C}_{12} \text{H}_5 (\text{N O}_4)$ ), +  $\text{H}$ .

These compounds, which may, with some others, be called the family of Xyloids, were at first regarded merely as chemical curiosities, but certain characteristics have brought several of them into more prominent notice lately. In 1859 I published a general review of their physiological properties,\* and I now propose more especially to illustrate some of the more important chemical and physical properties of certain members of the group; but little additional information has been obtained in reference to the first of the group, viz., *Xyloidine*. This substance is pulverulent, and explodes when struck with a hammer; it however is readily decomposed, Nitrous fumes being evolved, and the residue becoming damp.

The second compound, *Saccharöine*, is chiefly remarkable for its resin-oil character, its intense bitterness, and its physiological effects upon animals which, like its bitterness, to a certain extent, resemble Strychnine.

The third compound, *Pyroxiline*, has been greatly developed, and promises now to be a manufacture of national importance. Its first variety, *a*, is soluble in ether, producing Collodion, the surgical importance of which has been far exceeded by its value as an instantaneous photographic basis, which exceeds all previous menstrua. Dried collodion surfaces are also remarkable for their instant electrical excitement by friction. *Pyroxiline b* is of still greater importance, and its manufacture has recently assumed national distinction. The Governments of Austria and France, in succession, have instituted commissions to enquire into the capabilities of Gun Cotton as an explosive, in reference to its superiority over Gunpowder, but the difficulties in the way of obtaining a perfectly safe, definite, and permanent compound appeared for some time to be insuperable. These, however, have been overcome by Messrs. Prentice & Son, of Stowmarket, Essex,

\* The Liverpool Medico-Chirurgical Journal, No. 5, January, 1859. Greenwood and Churchill.

a small sample of whose productions I now exhibit, hoping on a future occasion more fully to illustrate them. They are prepared to produce continuously, and in large quantities, a quality of Gun Cotton of any required degree of explosive property, from the slow match to the bombshell charge. Uniformity in the chemical product is obtained by lengthened contact between the cotton and the oxidating agents, and stability is secured by long-continued washing and storage under water. The rapidity of combustion is regulated, as the flow of oil through a wick, by mechanical plaiting of the combustible yarn; and thus charges for the revolver, the rifle, or the cannon are readily and permanently adjusted. Mr. Abel, F.C.S., of the War Department, Woolwich, has rendered valuable assistance in bringing this manufacture to its present state of perfection.

*Nitro Glycerine, or Glonoine*, has an interest chiefly of a physiological character. It is a fluid, and is exploded into a large volume of free gases when suddenly compressed, or sharply struck. When taken internally, it produces in very minute doses intense headache, and in larger doses produces in animals convulsions and death. Latterly it has been extensively employed for blasting purposes, being ignited through water by means of a slow match, it produces effects more powerful than gunpowder, and can be applied with less labour than gun cotton.

*Nitro Benzene*, the last of the series now under consideration, differs from the preceding in containing no oxygen, except that existing as Nitrous acid. It possesses the remarkable odour of the essential oil of bitter almonds, and by de-oxidation is converted into that remarkable compound, Aniline, ( $C_{12} N H_7$ ) the base of the mauve and magenta dyes. This oily substance, called artificial oil of bitter almonds, is very

largely used in perfumery and for culinary purposes, but not without considerable risk, as it has proved on several occasions, both by inhalation of its vapour, and by internal administration, to be a powerful narcotic poison, only less deadly in point of time, but even more insidious, than prussic acid itself.

The whole class of Xyloids may therefore be regarded with especial interest, chemically, physically, and physiologically.

N.B.—The communication was fully illustrated by experiments and specimens, exhibiting the reactions and properties of specimens of the series manufactured by the author. The various modifications of Gun Cotton ordnance produced by Messrs. Prentice, which were forwarded for the occasion, did not arrive in time but were exhibited to the Society on a subsequent occasion.—*Vide* page 231.

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## ELEVENTH ORDINARY MEETING.

ROYAL INSTITUTION, March 20th, 1865.

J. A. PICTON, Esq., F.S.A., PRESIDENT, in the Chair.

Mr. Picton explained, with the aid of a plan, the proposed new approaches to the Landing Stages, now under the consideration of the Council.

Dr. Collingwood drew attention to the recent discoveries of Agassiz on the metamorphoses of fishes, and to those of M. Gerbe upon the probable larval character of *Phyllosoma*; and made some general remarks upon the tendency of these discoveries, which led to a conversation upon the subject of metamorphoses and embryonic changes, in which the President, Mr. Moore, Rev. H. H. Higgins, Dr. Collingwood, and others took part.

Mr. T. J. Moore exhibited specimens of a very fine *Gorgia* (*Lophogorgia palma*), and of a species of *Ísis*, from Port Elizabeth, South Africa, lately presented to the Derby Museum by Mr. Councillor A. C. Stewart.

Mr. Moore then brought before the society a large number of birds, reptiles, fishes, &c., lately collected in the neighbourhood of Lagos, West Africa, by Mr. R. B. N. Walker, and presented to the Derby Museum. This gentleman, some three years since, arrived in England from the Gaboon, bringing with him, among other remains of gorillas, the magnificent skeleton which he then gave to the museum, and has since been one of its greatest attractions. On his return to the African coast, Mr. Walker commenced to collect zoological objects in general, a large part of which were

now before the society. In all, there were some seventy species of birds, some of which were of considerable rarity, and one or two probably new to science; also eight species of frogs, one of which presenting considerable external resemblance, in the flattened form of the head and the long filaments about the mouth, to certain Siluroid fishes, Dr. Gray had described as a new genus, *Silurana*, naming the species *S. tropicalis*. This last-named creature was found in abundance in a pond near Mr. Walker's house, and afforded a good illustration of the novelties which may be found among the most common objects of a district. There were also several species of snakes and other reptiles, a few crustaceans, and insects. The more interesting and characteristic specimens in the collection were pointed out to the meeting, and a detailed list promised for the Society's Transactions. In addition to the specimens collected by himself, Mr. Walker had brought home some rare fish from the Bossumprah river, some two hundred miles distant from Lagos, collected and presented, with six species of birds, by Mr. H. T. Ussher, deputy-assistant-commissary-general. Among the latter was a sun bird, allied to *Nectarinia Eboensis*, but distinct, and a specimen of the West African Pitta, *Pitta Angolensis*. Among the fish were examples of *Malapterurus*, or electric fish; the genera *Sarcodaces*, *Labeo*, *NOTOPTERUS*, *Eutropius*, *Heterobranchus*, and other Siluroids, and several species of *Mormyridæ*, all most valuable accessions to the museum. In conclusion, Mr. Moore stated that Mr. Walker had it in contemplation to explore the interior of equatorial Africa, and, as he was present, would doubtless favour the society with his views on that subject.

Mr. R. B. N. Walker then addressed the meeting as follows:—If anything that I may have obtained has proved new and interesting, I am very much pleased to find that such is the case; but I think that Mr. Moore is entitled to

quite as much credit as myself, if not more, as it was solely through my always bearing in mind the hints which he gave me that I succeeded in collecting the few specimens you now see. Mr. Moore took pains to impress upon me that I could not possibly do better than secure everything, whether common or otherwise, and I certainly acted up to his precept in the most complete manner. The result, however, shows that what is nominally the most common is not necessarily the least interesting. I only regret that my opportunities were so few, and that the country I have lately returned from was so barren a field; but I hope at some future period to be able to accomplish something more worthy of your notice. With regard to the skeleton of the gorilla which has been alluded to, and which is, I believe, the largest specimen of the kind ever yet brought to Europe, Mr. Moore has told you how it passed from my hands into his; and I am sure that I experienced great pleasure in being able to gratify Mr. Moore personally, and also to supply to the Liverpool Museum an object that was wanted, and which has been so well appreciated. I regret that the skeleton is imperfect, but I do not despair of being able to recover some of the missing parts should I return to Gaboon, as I anticipate doing before long, when I shall have more leisure to devote to making a collection than I have yet had. As to the other matter which has been alluded to, my desire to return to the Gaboon, with a view of exploring those little-known regions lying within seven or eight degrees on either side of the equator, I may observe that this idea is by no means new to me, as so long ago as 1859 or 1860 I asked leave of my then employers to make an attempt to traverse the continent from west to east, and made all my preparations to start on the journey; but those gentlemen, considering that such an attempt was incompatible with the object for which they had sent me out, refused me the necessary permission to absent

myself from their business. I was therefore compelled to relinquish my project, and I have not since had an opportunity of putting it into execution. Two or three months since, however, the same idea recurred to my mind, and after some deliberation I determined to submit a proposal to the Royal Geographical Society, and ask the assistance of the council towards putting my design into practice. I therefore addressed a letter to the council a few days since, and after an interview, at which I explained my views, the society agreed to furnish me with the necessary instruments, and make me a grant of £100 towards paying the expenses of an expedition into the interior. The Anthropological Society also voted a sum to be applied to the purchase of articles for their museum. The sum I have named is, of course, not in itself by any means adequate for the purpose; but should I meet with such further support and assistance as would lead me to hope that I should be able to carry out the undertaking in an efficient and successful manner, I am fully prepared to start next month for Gaboon; and as the dry season, which is the proper time for commencing the journey, is fast approaching, I ought not to be later. I am induced to hope that though not myself a native of Liverpool or the neighbourhood, yet having been for many years connected with the town, and having already done what little I could to add to the collection in the Public Museum, and being desirous of doing far more, I may meet with such countenance and support as may enable me to put into execution the plan I have contemplated, and which is, I am sure, one that merits attention, as the part of the interior of Africa which I propose to visit is so little known, and offers a new and most interesting field for the explorer. I am desirous of starting next month if possible, and should in all probability be accompanied by a friend, who is desirous of taking part in the expedition, and who, being an excellent draughtsman, would be a desirable companion in

such a journey ; but I am prepared, if needful, to start alone, as I do not anticipate any great difficulty in the undertaking, the natives, so far as they are known, being by no means hostile, and the climate, to which I am well accustomed, being by no means so dangerous as is generally supposed ; for contrary to the usually received idea, that part of Africa lying almost immediately upon the equator is the most healthy of any part of Western tropical Africa ; at least, so far as my experience goes, I have found it to be so. I am already acquainted with many of the tribes inhabiting the country, and speak some of the languages, which knowledge would, of course, be of great service to me in my intended expedition. I should have stated that the main object of this undertaking would be to discover the position of a lake, lately reported by Van Heuglin to exist far to the westward of any of the lakes already known. I first heard of this lake myself some five or six years since, from the Fans, and believe it to be situated near the equator, and some six or seven hundred miles to the eastward of Gaboon. Should I be fortunate enough to meet with this lake, and determine its position, I should feel amply rewarded ; though if I retained my health I should not make this my goal, but proceed as far east as practicable, unless I discovered, as I should expect to do, some large river taking its rise at this lake, in which case I should endeavour to follow its course to the sea. In conclusion, Mr. President, I desire to return my thanks to Mr. Moore for the very kind manner in which he has spoken of me ; and I also beg to express to you and to the society my great gratification at the kind and cordial reception which has been accorded to me this evening.

In reply to the President's question concerning the habitat of the gorilla, Mr. Walker said,—I am of opinion that the gorilla exists in the Dahomey country and in Yoruba, and, in fact, in nearly all the country between Dahomey and the

Congo. I believe that Bowditch was the first person in modern times to record the existence of this great ape, which he mentioned, I think, nearly fifty years ago under the name by which it is known in Gaboon—Ngina or Ingina. It was certainly known to the American missionaries in Gaboon in 1844 or 1845. The gorilla is by no means so rare as Du Chaillu has represented. It is common enough in Gaboon and in the Camma country, being sometimes found within three or four miles of the sea. One, the remains of which in spirit I brought to England in 1862, and presented to the British Museum, could not have been shot at a greater distance from the Gaboon river than ten miles, as it was shot at four p.m., and was brought to my factory at one a.m., having been brought across the river, there seven miles wide, as well as transported some distance by land, and weighing probably not less than 200lbs. It is not likely that the natives could or would have carried it any great distance in the time stated, nine hours. I am convinced that the gorilla exists near Lagos, from remains which I saw, and from noises which I heard, when travelling on the rivers near that place.

At the conclusion of Mr. Walker's address, the President, Dr. Collingwood, and Mr. Duckworth made some remarks upon the desirability of the expedition; and a voluntary subscription was commenced. It was further announced that Mr. Henry Duckworth, F.R.G.S., 5, Cook Street, would take charge of any subscriptions for this purpose.

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## TWELFTH ORDINARY MEETING.

ROYAL INSTITUTION, April 3rd, 1865.

DR. NEVINS, VICE-PRESIDENT, in the Chair.

Captain Alexander Cameron, ship *Staffordshire*, was balloted for and duly elected an Associate, on the recommendation of the Council.

Mr. T. J. Moore exhibited an extensive collection of marine specimens, collected between Liverpool and Valparaiso, in 1864—5, by Captain F. E. Baker, ship *Nippon*, one of the most zealous and successful collectors among the Associates of the society. The collection has been most kindly presented to the Derby Museum by Captain Baker, with his notes on the latitude and longitude, and such other observations as with a keen eye and quick apprehension he was able to make at the time of the capture of the specimens, of their form and colour, and such habits as they exhibited, when placed for observation in glasses of sea-water. The collection is rich in examples of the marine *Polyzoa*, *Physalia*, *Velellæ*, *Diphyes*, &c., and contains a beautiful specimen of a *Physophora*, taken in lat. 50 N., lon. 14 W. It is also rich in the smaller forms of Crustacea, both in numbers and species, especially in *Amphipoda*, *Isopoda*, and the parasitic *Entomostraca*. Among Mollusca are many fine examples of *Salpidae* and other Ascidians, several species of *Pteropoda*, some pretty *Nudibranchs* (*Eolids*), a beautifully perfect little *Carinaria*, and several *Firolidae*. There are also a few small species of fish, and a fine skin of a *Coryphæne*. Alto-

gether the collection, when received, comprised more than one hundred bottles, very many of which contained specimens of several species collected at one haul of the skimming net, by which, indeed, a very large proportion of the collection was obtained.

The Chairman passed a high eulogium on the energy and skill displayed by Captain Baker, to whom a most cordial vote of thanks was unanimously passed by the meeting, for his exertions in the cause of natural history.

Dr. Edwards exhibited several specimens of gun cotton, manufactured by Messrs. Prentice & Co., Stowmarket, and exhibited its mode of combustion.

A Paper was then read by Mr. J. M'Farlane Gray, on "Building Society Reform."

This paper was listened to with considerable interest and attention. Several gentlemen connected with building societies were present, and at its conclusion a discussion followed, in which they took part.

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### THIRTEENTH ORDINARY MEETING.

ROYAL INSTITUTION, 17th April, 1865.

J. A. PICTON, Esq., F.S.A., PRESIDENT, in the Chair.

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Previous to this meeting, according to notice, an

### EXTRAORDINARY MEETING

was held, to consider a recommendation of the Council, relating to the Gallery of Inventions and Science.

In consequence of a communication from the Committee of Management of the Gallery, alleging a co-trusteeship on the part of the Literary and Philosophical Society with the other learned Societies in the management of that institution, the Council was anxious to submit to the Society, for re-consideration, the question of a grant of ten pounds from its funds, in aid of the funds of the Gallery.

The question having been put, and a discussion having taken place among the members present, the motion was again negatived, by twelve votes against four.

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At the ORDINARY MEETING which followed, Mr. William M'Cheane, M.R.C.S., and Mr. W. J. Baker, were balloted for, and duly elected members of the society.

The following Paper was then read:—

# THE HISTORY AND PROGRESS OF THE MANUFACTURE OF BEET-ROOT SUGAR,

ETC.

By MR. A. BARUCHSON.

Sugar, whether we regard it as an article of food or commerce, is unquestionably one of the most valuable vegetable products with which civilised man has become acquainted. Sugar, as you all know, is a sweet granulated substance, the product of certain kinds of cane and of other plants. It is now everywhere in extensive use, and in this country ranks rather among the indispensable necessities of life than among luxuries, and in point of commercial importance may be said to be second to very few commodities; in fact the relative consumption of sugar, if the cost in all countries including duty were alike, would be a test, if not of comparative civilisation, at all events of the prosperity and popular well-being of the nation.

The present average consumption per head is as follows:—

United Kingdom,	.....	40lb.	per head.
Belgium,	.....	8lb.	„
Switzerland,	.....	17lb.	„
Portugal,	.....	7lb.	„
France,	.....	16lb.	„
German League,	.....	5½lb.	„
Netherlands,	.....	13lb.	„
Austria,	.....	3¼lb.	„
Sardinia,	.....	10lb.	„
Spain,	.....	1¾lb.	„

Exceptional causes sometimes prevail to disturb a generally received theorem. Belgium, although highly prosperous, appears to consume less sugar than France and Holland;

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this may in part be attributed to absurd fiscal regulations, whereby consumption is lessened, and in part to a system of evasion practised by the refiners; consequently, the quantity on which duty is paid for consumption should not be taken as the quantity actually consumed. There is also good reason to suppose that the general use of sugar in Europe has had the effect of extinguishing scurvy, and many other diseases, formerly epidemical.

Monsieur Basset, in the preface of his very able work, *Guide Pratique des fabricants de Sucre*, states it as his opinion, that if sugar were so reduced in price, by the reduction or entire absence of Customs duties, that its use could be largely extended among the lower classes, the consumption of spirituous liquors would be diminished thereby. This, however, is an Utopian idea, as, notwithstanding that the use of sugar in England is on the average three-fold that of any other nation in Europe, the consumption of strong drinks is, I am sorry to say, equally large in proportion.

The uneasiness with which every rise in the price of this article is looked upon proves to what extent it has entered into our daily wants, and how difficult it would be to dispense with its use.

We are not aware that there are any very authentic accounts when Sugar first began to be used in England. It was imported in small quantities from Venice and Genoa in the fourteenth and fifteenth centuries, but in England it appears that honey was then, and for a long time after, employed in sweetening liquors. Sir John Hawkins, on his return from St. Domingo, from a slavery expedition, brought with him considerable quantities in 1568.

Its use in England was chiefly confined to medicine until 1580, when it was brought from Brazil to Portugal, and thence to this country. Sugar, in common with many of our modern articles, came through the Apothecaries' hands to become an essential

requisite of our daily food. Its use as an aliment remained long unknown in Europe, but with the progress of civilisation the use of sugar has gradually increased, till it has reached the lowest classes of society. As, however, the subject of my paper this evening is not the article of sugar generally, I shall at once proceed with the kind extracted from the beet-root.

In 1747, Margraff, a Prussian chemist, made the discovery of beet sugar, and advised the Prussian farmers to cultivate this plant, the extract of which might so advantageously replace the cane sugar. The prices then ruling were however not high enough to allow the introduction of the beet sugar manufacture without vigorous protection, as the European markets were at that time so abundantly supplied by Brazil, the Dutch colonies in South America, the French possessions, and lastly by the English West India Islands, where, through the importation of slaves, the sugar culture had received a fresh impulse, so that the importations amounted to 180,000 tons. Therefore, although Margraff plainly saw the benefits which might result from the discovery, he did not pursue the object further.

Twenty four years later, in 1773, Achard, a Berlin chemist, convinced of the great importance of this subject, recommenced experiments to extract sugar from the beet, under Royal encouragement. Frederick the Great, whose love for the arts and sciences is so well known, perceived in the application of this discovery the means by which to develop Prussian industry, and to diminish the exportation of specie in payment for the imports of cane sugar. The death, however, of this great ruler and philosopher prevented Achard for some time from continuing his interesting researches. He resumed them in 1795, and we find that in 1796 he established the first beet-root manufactory in Camoon. His observations are found in a curious pamphlet, wherein the

writer enumerates the various uses and benefits to be derived from the beet plant, all of which in the course of time have been verified. The pamphlet states, that, besides the primary article of sugar, the head of the root is eaten green by cattle, as is also the pulp after the sugar is extracted; that a great production of valuable manure is the result; that this manure, in returning to the soil, prepares it specially for an abundant production of cereals; that the molasses are converted into alcohol or vinegar, and that the leaves could be used as a substitute for tobacco. It was only in 1799 that the reports of Achard's investigations and their successful results became known in France. His statements went to prove that the kilogramme (rather more than two pounds) of brown low muscovado (or raw sugar) could be produced at 65 centimes, or about 8d. the English pound. He furthermore stated that, by improving the manufacture and deducting the value of the residue, the price might even be considerably reduced. The letters of Achard, published in a *Chemical Annual*, produced everywhere in France the greatest sensation. The journals generally inserted extracts, which attracted the attention of all classes of society, according to the ideas or passions of that period. Some considered this new discovery to be an impudent quackery, others looked upon it as a means of escaping the thralldom of the commercial and industrial monopoly of England. Such an important fact, claimed not only the attention of the scientific world, but also of the Government. A commission of ten, which was comprised of Sels, Chaptal, Parmentier, and other eminent chemists, was appointed by the Institute to investigate this new branch of industry, and to report upon Achard's writings on the subject.

The report of the commission went to prove, that 25 tons of root yielded about  $4\frac{1}{2}$  cwts. of white cassonade, or a little more than one per cent., only one fifth of what is now

considered but a very ordinary production from the root. The first powerful impulse given to the manufacture of beet sugar was in 1809, when Napoleon issued a decree prohibiting France from purchasing the produce of the West Indies; still only 2 or 8 per cent. of sugar was obtained. This could not under ordinary circumstances compete with the produce of the cane, but the continental system then introduced by Napoleon, that of blockading the ports, had the effect of raising the price of sugar; in addition to this, he offered premiums for the best methods of extracting (pure) sugar from beet. Every facility and encouragement being granted by the Emperor, the chemists of France exerted themselves in furthering his views.

Extensive experiments were consequently made in the cultivation of the root, and as to the best methods of obtaining the juice, and manufacturing the sugar. The first manufactory was established at Rambouillet, under the especial patronage of the Emperor, and many more were soon at work. The first samples were received by Napoleon with great joy, and he placed them under a glass shade in his drawing room, proudly exhibiting them as one of his greatest treasures. Being especially anxious to render France independent of England, a decree appeared in 1812, establishing chemical schools and imperial manufactories for the extraction of sugar from beet.

The Government ordered the cultivation of 100,000 acres, calculated to produce 87,500 tons sugar, at that time sufficient for the wants of France. Licenses to the number of five hundred were granted, to the owners of manufactories, or to those who, anterior to this decree, had made great sacrifices in endeavouring to produce this new kind of sugar. This inland product was to be free of duty, or any other tax, for four years from the date of the decree, and every manufactory had to make or furnish at least ten tons the first year. In all parts of

France the cultivation was tried, and manufactories everywhere erected, but with more enthusiasm than success. One of the men who had done the most for this new industry was the illustrious economist, Matthieu de Dombasle; but he, like all the others, suffered serious disappointment. These reverses arose either from continual rain, or excessive drought, or the bad process of cultivation and manufacture; so that the expenditure was altogether out of proportion to the return. Perhaps, also, the political vicissitudes of the last days of the Empire exercised their fatal influences, as foreign troops, especially Cossacks, in the years of 1814 and 1815, occupied and destroyed numerous fields of this and other plants. Matthieu de Dombasle writes that, at the moment when he, for the first time, ploughed for the cultivation of the year, the French troops entered Moscow; and when, later in the year, he was occupied in manufacturing the root, his buildings served as a garrison to a detachment of Cossacks.

The lower prices of sugar which resulted from the events of 1814 and 1815,—namely, the Restoration,—ruined all these new establishments; and the manufacture of beet sugar could not survive the extraordinary circumstances to which it owed its existence. The French ports were opened to the commerce of all maritime nations; bonded warehouses, long empty, were filled with colonial sugar, and prices sustained a great decline. One establishment only continued to exist, that of Crespel Delisse,\* now one of the veterans of this flourishing branch of industry. It may not be uninteresting to you to know that, by rare perseverance and enterprising spirit, Delisse and his sons have seven manufactories, to one of which is added a refinery, and produce annually not less than *six thousand* tons of sugar. The industrial and administrative

\* Crespel Delisse, the veteran manufacturer, died recently, and a monument to his memory is to be erected by public subscription.

organisation of these establishments may serve as a model for the construction and management of similiar undertakings.

It may naturally be supposed that after the Restoration no great efforts were made to protect and encourage this infant industry at the expense of the revenue; while its imperial origin was unfortunately no recommendation, nor likely to awaken the sympathy of the Government. After different legislative modifications, the duty on foreign sugar was raised, and colonial and home grown placed on an equality. Then beet sugar began again to show signs of life, and from 1822 to 1825 more than a hundred small manufactories worked regularly, producing annually about *five thousand* tons. At the present day FIVE factories produce an equal quantity.

The stability of this new home product appeared an accomplished fact, and it continued to progress until 1828—29, when, reports of large profits made from this new branch of industry attracting the attention of Government, the manufacturers were informed that their produce would ere long have to bear an increased taxation.

The Revolution of 1830, however, put a stop to the intended change of duty, and until 1836 a regular and rapid progress followed, the production in these years being—

In 1830, 5,500 tons.	In 1834, 20,000 tons.
1831, 7,000 „	1835, 30,000 „
1832, 9,000 „	1836, 40,000 „
1833, 12,000 „	

Improved machinery, and the application of steam, were of great benefit during these years, enabling the manufacturers to extract from the root larger quantities of sugar than previously. In 1836 manufactories were dispersed over no less than thirty-seven departments, to the number of four hundred and thirty-seven, a certain number of which were in full operation. Manifest improvements had also been made the result of experience, and the application of chemistry.

\* \*

Thanks to the fruitful alliance of this industry with agriculture, the fallow ground had everywhere disappeared, and other branches of agriculture profited thereby, the breadth of land sown with wheat, which in 1816 was only 94,000 hectares, was in 1836 115,000 hectares, besides a proportionate increase of barley and potatoes.

It was just at this period, 1838, when the full and lasting benefit was about to be reaped from this industry, that vacuum pans were introduced, and the filters for animal charcoal came into general use. But in 1838 this remarkable progress was again interrupted, by the clamour of the Colonial interest and of the shipowners, inasmuch as 49,000 tons of beet sugar were produced, while only 55,000 tons were imported from the Colonies.

There was then the prospect that, from the rapid extension of beet sugar, the import from the Colonies would gradually decrease, if not altogether cease. This certainly was sufficient to alarm importers and shipowners, who prevailed upon the Government to almost extinguish this new branch of industry, at all events so to clog it by fiscal laws and heavy duties as to prevent its materially interfering with the colonial and shipping interest. Success attended the efforts of these protectionists, and on the 18th July, 1837, the Chamber passed a law, which however was only to come into operation on the 1st July, 1839, adding an extra duty of 15fcs., or 12s. per 100 kilogrammes, on beet sugar, above Colonial. The year following, the manufacturers suspended operations, and the production, which in 1838 was 49,000 tons, fell in 1840 to 22,000 tons. Notwithstanding this protection, the imports from the Colonies only increased by 8,000 tons, and prices did not advance. Additional pressure was therefore again brought to bear on the Government, and on the 28th August, 1839, the duty on Colonial sugar was further reduced 10s. per 100 kilogrammes, so that in one year the difference of duty was altered to

22s. on beet sugar above that of Colonial. Notwithstanding this great pressure on the home product, and increased imports of Colonial, there seemed a vitality in this rising industry which could not be destroyed, for 26,000 tons were manufactured in 1841, and 30,000 in 1842, although in the latter year the large quantity of 89,000 tons was imported from the Colonies. The consequence was that the protectionists commenced their agitation anew, and hinted that the only solution of this interminable sugar question would be the suppression of the beet-root sugar culture and manufacture, the interdiction of which was actually proposed in the Chambers on the 10th January, 1848, but the proposal was rejected.

For some years, viz. till 1848, the production remained somewhat stationary, but after the revolution of that year, slavery being abolished by the Republic, the result was a diminution in the production of Colonial sugar. A considerable reduction was then also made in the duty on beet, placing it on the same footing as foreign sugars, such as Havannah, Brazil, Manilla, which are 3 to 5 francs per hundred kilogrammes above Bourbon and Antilles. And although, since then, various alterations have from time to time taken place in raising or lowering the duties, even now beet sugar pays the same duty as foreign; thus favouring the Colonies at the expense of the home grower, on the ground that no freight or insurance or large commissions are paid by them.

Leone Levi, in his lecture at King's College last year, on the sugar duties, erroneously asserted that beet sugar, in France and elsewhere, was only sustained by the favour of the respective Governments. The contrary is the case in France, and I believe also on the Continent generally. Since 1848, the progress has been amazing and uninterrupted, except so far as unfavourable seasons have exercised their

influence. In 1862—63 it had reached 175,000 tons; in 1863—64, though there was a comparative failure, 130,000 tons were produced; and the great sugar speculation which ended so disastrously to many who operated therein, arose in part from this cause.

The last year, 1864—5, so large a breadth of land had been sown that a crop of more than 200,000 tons was expected; the extremely dry weather, however, did serious damage, and only 155,000 tons have as yet been manufactured; it is, however, presumable that from 10,000 to 15,000 tons more may be produced from the molasses, which are worked in the months of April and May.

The cultivation is still increasing; and only last week, when in France, discussing this matter with some of the leading manufacturers and refiners, they stated that the cultivation will continue to increase, and that, by the constant improvement of machinery and process of manufacturing, the quantity produced will be doubled in the *next* ten years, even as it has been during the *last* ten years. Nay more, they considered, that as the whole of the Continent was extending the growth and manufacture of this article, the production in all Europe, which was last year about 500,000 tons, would in ten years reach one million of tons at least. Then, it was added, neither England nor Europe will require any more cane sugar, and a great part of the ground and labour now devoted to sugar in the tropics may then be diverted to the growth of cotton and coffee. These gentlemen, however, forget that if the production increases in Europe, the consumption will do so likewise.\* The 500,000 tons present annual production may be divided as follows:—

France .....	about 200,000 tons
Belgium .....	„ 25,000 „

\* The consumption in Great Britain, from 1845 to 1856, had more than doubled, say from 195,000 tons to 400,000 tons, and is now 525,000 tons.

Holland .....	about	2,500 tons
German League .....	„	160,000 „
Austria.....	„	65,000 „
Russia .....	„	40,000 „
Poland and Sweden.....	„	10,000 „
Spain .....	„	500 „

Having now given you a short review of the history of this article up to the present day in France,—and I may here add that the other countries on the Continent have gradually progressed with the progress of France, although also more or less dependent on the frequent fiscal changes introduced by their Governments,—I will now proceed to state some particulars regarding the root, and its culture; then call your attention to an outline of the manufacturing process; and conclude with an *exposé* of the benefits other countries do, and our own country might, derive from following, in this respect, the example of France and the Continent generally, especially as regards Ireland, the Channel Islands, and the Isle of Man, in fact wherever land and labour are available on reasonable terms.

First, then, as to the culture of the plant.

The beet-root, (French *betterave*,) is a biennial plant, originally from the South of Europe, and, as it appears, was first introduced into the Netherlands during the Spanish rule; from thence it was brought into Germany. It was first introduced into France in the year 1595, passing the Alps, and, according to Olivier de Serres, remaining for a long time in oblivion. In 1784 it again came into public notice, through a manuscript of the priest, Commercella.

There are two distinct species of beet commonly cultivated, each containing several varieties; the one producing succulent leaves only, the other, the *vulgaris*, distinguished by its large fleshy root. The former is chiefly cultivated in gardens, as a culinary vegetable, and forms one of the principal

vegetables used by the agricultural labourers and small occupiers of land in many parts of Germany, France, and Switzerland. The second species, the *vulgaris*, or beet-root, has long been cultivated in gardens, especially the red beet, which, when boiled and sliced, makes such excellent addition to the winter salad.

Being a native of the South, all its varieties are tender, and easily destroyed by frost when young. It thrives best in a rich dry soil, and, from the length of its tape-root, requires a considerable depth. The white beet is, *par excellence*, the sort most applicable for the extraction of sugar, and is generally preferred to the other varieties.

The common field beet, for cattle, has been long known in Germany, and was introduced into England at the end of the last century; its introduction is attributed to the late Dr. Lettsom. The German name is *mangel wurzel*, which means scarcity root; and, by a strange translation, the French call it by two names, *racine d'abondance*, and also *racine de disette*—the first meaning abundance, the second mangel, or scarcity.

The beet presents a pivot root, the extremity of which descends deep into the soil, gathering there, through the medium of its radicles, with which it is abundantly provided, the pabulum which it requires.

The cultivation of this plant is similar to that of most of the weeded sorts, and depends on the same principles; its pivoting root is unsuited to a tenacious and clayey soil, but prospers in a rich sandy loam, easily penetrated by water, with nutritious elements to a good depth.

As regards manure, the best adapted is such as is principally composed of carbon, that is to say, of the necessary element of sugar; thus all decomposed plants are recommended. The manuring should only take place during the autumn preceding the seeding.

Soil which contains mineral salt is totally unfit for the cultivation of the sugar beet, but may be adapted for the root used for distilling. The plant easily absorbs saline matters, which are great obstacles to the extracting of the sugar.

The preliminary preparation of the soil varies according to its nature. It should be ploughed twice, followed up by harrowing, and a third ploughing before the sowing or planting; then weeding, when the plant is easily distinguished from the bad herbs (darnel); it should also be twice or three times ploughed during the growing. The greatest cleanliness is required, and labour freely expended on the land is amply repaid by the result.

In sowing, ridges of half-an-inch to one inch in depth are made, women following the plough sow the seed in the ridges at sixteen inches apart, and cover it with earth. Each woman can in this manner sow 6,000 or 8,000 seeds per day, and half the seed which would be required if sown broad-cast is sufficient, and the weeding afterwards is attended with less difficulty and expense.

After the crop has been gathered, all haste is made in manufacturing the sugar; but to preserve the roots meanwhile, if they have to be taken out of the ground, and cannot at once be used, they are often covered with soil, or put in cool dark cellars, mixed with ashes or coal dust.

In Germany, the roots are sliced and dried in kilns, so as to preserve them till they are wanted during the winter. This system is also, to some extent, introduced and improved upon in France.

There are many varieties of beet-root, but they may be reduced to eight principal sorts, only some of which I shall enumerate. The most profitable for the extraction of sugar is the white Silesian, with a green or pink collar. It grows very little out of the soil, and this circumstance makes its

digging out the more difficult; but, on the contrary, it has the advantage of diminishing the saline matters, and increasing the saccharine. As this species does not so soon deteriorate, it is preferred by the manufacturers. Its composition consists of—

Water.....	83.50
Sugar .....	10.50
Cellulose .....	.80
Albumen .....	1.50
Different matter .....	3.70
	<hr/>
	100.00

The yellow beet of Castelnaudary (France) only grows half out of the soil, and contains, consequently, less sugar, as the saline matters are thus increased.

The red beet grows still more out of the soil, and the quantity of saccharine is therefore still less than in the yellow. This sort is more suitable for distilling and cattle-feeding.

The field beet, as a plant, is the most productive, but only contains from 4 to 7 per cent. gross of sugar; it has a pink skin, and the flesh is alternately white and pink.

The most suitable time for sowing is in the month of April, or early in May. If sown sooner there is danger from the frosty nights; or, if the spring is warm and genial, it vegetates too soon, and, instead of increasing in substance, shoots up in seeds, stalks, and stems.

It has been found by experience that the beets grown direct from seed have larger roots generally than those which are obtained by transplanting.

The crop of the beet-root varies materially. Chaptal quoted, in round numbers, 20 tons per hectare ( $2\frac{1}{2}$  acres); later on, Dubumfault, 24 tons; and still more recent, Dr. Sace, 40 tons. In the north of France, the produce of an hectare

is sometimes 50 tons; but 40 is considered a good average, and this is obtained only from good soil, properly manured, and well worked.

In theory, 50 tons of root should produce  $5\frac{1}{2}$  tons of sugar and *molasses*; but this cannot be depended on.

M. Payen asserts that 5,000 tons of root produce 300 tons of sugar and 60 tons of *molasses*; this I may say, from my personal inquiries very recently, is about the case—5 to 7 per cent. pure sugar being extracted from the beet, according to the comparative richness of the root, the result of the season, the skill of the manufacturer, &c.

The same author gives the following calculation for the cost and result of one hectare :—

Rent, taxes, and interest .....	115	francs
Manure .....	130	„
Ploughing twice .....	86	„
Sowing and Seed .....	18	„
Weeding.....	35	„
Digging and transport .....	36	„
	<hr/>	
	420	„

Taking the produce at 40 tons, this would make 8s. 6d. per ton, or 10.50 francs. The present year's crop has been already contracted for by many manufacturers, at 20 francs or 16s. the ton, which is therefore equal to a profit of cent. per cent.\* The value of the leaves is an additional benefit to the farmer.

M. Louis Vilmaris, a French physiologist, and known for the ameliorations effected in the industrial plants, intimates his having grown a species of beet-root which contains 24 per cent. of saccharine matter. He goes still further, and professes to be able to obtain generally, from this rich species,

\* This was published by Payen in 1855; now, rent is much higher, as you will hear; but production was not then so large. But as rents are now double what they were, the cost will stand to 10s. per ton, leaving a profit of 6s.

59,000 kilogrammes, or about 60 tons, per hectare. The growth of such a specimen would not only greatly benefit the grower, but also be a considerable saving in labour and expenditure to the manufacturer. Then would the favourite saying of the French planters, "Sugar actually grows in our fields," become a reality. Without, however, fully accepting these statements, it is nevertheless far from improbable that a beet-root containing as much saccharine as the canes of the Louisiana and the West Indies may be produced. I may here ask, What would be the future of cane sugar in those sugar-producing countries where slavery still exists? Admirable solidarity of human progress, the augmentation of the produce of the regenerated beet-root to 18 per cent. would at once settle the difficult question of slavery, as slave-grown sugar would not then be able to compete with that of the rich productive beet.

Although the crop of 1860 was generally far from favourable, and of a very inferior quality, yet owing to the beneficial influence of a perfectly dry September month, some of the roots in Pay de Dome were found to be of remarkable richness, and a great quantity actually contained 14 per cent., nearly equal to the cane of Mississippi. As a rule, 100lb. of beet in France contains 12lb. gross sugar, part of which, however, is rendered uncrystallisable during the process.

It appears that sugar does not accumulate in the root until after the leaves are completely formed, the per centage of sugar gradually increasing until the beet is fully ripe. As soon, however, as the flower-stalk begins to form (which is generally prevented by plucking the leaves off), the saccharine matter declines, and when the seed is formed it is reduced almost to nothing.

According to Ure, Liebig, Schwarzwaller, Basset, Dureau, Muspratt, and other eminent chemists, the sugar obtained

from beet is crystallisable, similar in *every* essential to the sugar extracted from the cane. In fact, Ure says that the sugar obtained from cane and maple is surpassed in cohesive force by the beet, since larger and finer crystals of it are obtained from a clarified solution of equal density. This is particularly the case in the article of candy; if made of beet, as in Belgium, the crystals are larger, and better defined and cut, than that which is made from cane, as in Holland. This opinion is also shared by Baron Liebig.

Perfectly pure sugar made from beet cannot be distinguished from perfectly pure sugar made from cane; but the imperfectly purified sugar may easily be detected by its taste and smell, which differ materially in that state from those of the cane. Some of the refiners in England, especially in London, are obviously prejudiced against the use of beet sugar, considering it inferior, and many will only purchase it at 1s. to 2s. per cwt. below the price of cane. Those who have fairly tried it are convinced that there is no difference between the two; nay, further, that being entirely free from sand, and of stronger crystals, it is preferable to either unclayed Brazil, Cuba, or Manilla, and in the process of refining passes through the filters with greater ease. If further proof were required to confirm my remarks, I might state that the Paris refiners will pay rather higher prices for coloury beet than for cane, number for number. Beet sugar, from No. 12 and upward, produces from 90 to 95 per cent. of refined sugar, according to quality. Even in this country, proofs are not wanting to confirm its superiority. I have it from one of our leading Liverpool refiners, that only Havannah, from No. 12 and above, is equal to similar numbers of beet; and the Scotch refiners, who have for some years largely used the beet, will, like their Parisian brethren, pay rather higher rates for similar quality of beet than of cane. Unfortunately, owing to the differential duties in this country, it has been to the

interest of English refiners to purchase only the lower qualities, which, as I have stated, are not so desirable, owing to the large quantity of molasses, mother-liquor, and other non-crystallisable sugar which it contains.

To procure the sugar contained in the beet various processes have to be adopted, and which should be followed up without loss of time. The first object is to get the masses in which the sugar is embodied, and to extract the juice as pure as possible. To achieve this object, the roots are first thoroughly cleaned and cut in slices, then pounded, or rasped by machines, in wooden troughs; by these processes the cells are torn up, and the beet reduced to a pulpy substance.

The machine employed is a cylinder of tinned iron, two feet or more in diameter, and eighteen inches in the axis, which is turned by machinery. On the circumference of this cylinder are fixed, by means of screws, ninety narrow plates of iron, rising three quarters of an inch from the surface, and parallel to the axis at equal distances all around. The outer edges are cut into teeth like saws, a slanting box is fixed to the frame on which the axis turns, and the roots are pressed against the plates. The cylinder is then made to revolve rapidly, the roots are thus scraped, and the pulp falls into a vessel lined with lead. When two such cylinders are used, revolving four hundred times in a minute,  $2\frac{1}{2}$  tons of roots are ground down in two hours. It is necessary that operations should proceed rapidly, or the pulp acquires a dark colour, an incipient fermentation taking place which greatly injures the future proceedings. When the pulp is ground, it is put into strong canvas bags, a number of which, separated by iron plates, are put under a powerful press to extract the juice; the residue is subject to a second, or even to a third pressure if necessary, till every particle of juice is extracted. The liquor runs into a copper vessel until it is two-thirds filled; the strength is ascertained by an instrument similiar to the saccharometer; the fire

under the copper is now lighted, and by the time the copper is full, the heat is raised to 178° Fahrenheit, not more.

In the meantime a mixture of lime and water has been prepared, by gradually pouring as much water upon 10lb. of quick-lime as will make the mixture of the consistency of cream; this is poured into the copper, when the heat is steady at the before mentioned degree, and is well mixed with the juice by stirring. The heat is then increased until the mixture boils, when a thick scum rises to the surface. As soon as clear bubbles appear through the scum, the fire is suddenly put out by water, the scum hardens and cools, and, the sediment being deposited, the liquor becomes clear and of a light colour. The scum is then carefully removed by a perforated skimmer, and is put into a vessel until the liquor remaining in it can be pressed out; a tap is now opened, about five inches above the bottom of the boiler; another tap lower down lets out the remainder, until it commences to appear cloudy; what still remains is afterwards boiled again, along with that extracted by pressure from the scum. The clear liquor is now subject to evaporation in another boiler, which is wide and shallow; the bottom is at first but slightly covered by the juice, which boils rapidly; as the water evaporates, fresh juice is let in. When a certain degree of thickening has taken place, so as to show five or six degrees of strength, animal charcoal is gradually added, till the liquor arrives at 20° by the saccharometer. One cwt. of charcoal is required for the juice of 2½ tons of beet sugar. The evaporation by boiling continues until the saccharometer marks 25°, and a regular syrup is obtained. This syrup is now strained through linen filters, and the liquor is kept flowing by means of steam or hot air, assisted by pressure; in two or three hours all the clear syrup will have run through.

There are many important items, as I am informed, which

have to be attended to, but as these are only taught by experience, and, possessing no practical knowledge myself, I can only give such information as I have obtained personally from a manufacturer with whom I stand in commercial relations, and from scientific works which I have perused.

The lime which has been involuntarily absorbed by the juice is neutralised by acid. The syrup, when thus prepared, is again boiled and skimmed, until it is sufficiently concentrated; the fire is then put out, and the syrup carried to the cooler, which is a vessel capable of containing all the juice produced by four operations of boiling; until the crystallising process commences, the whole is well mixed and stirred. Before it becomes too stiff, earthen moulds, of the well-known sugar-loaf shape, and of the size called great bastards, are filled with the crystallising mass, of which a little at a time is poured into each; when full, they are carried to the coolest place on the premises. Whilst the crystallisation goes on, the crust formed on the top is rapidly broken, and the whole is stirred till the crystals are condensed in the centre; it is then allowed to go on, without being further disturbed, and in three days it is so far advanced that the pegs in the holes at the point of the mould may be taken out, and the molasses allowed to run out. In a week, this is mostly run off, white syrup is now poured on the top of the mould, which filters through the mass, and carries part of the colouring matter with it. The sugar is then crushed, and when this is refined, and the same process is followed as with cane sugar, it is impossible for the most experienced judge to distinguish it from cane sugar, either in taste, smell, or appearance. From this it arose that, during the blockade in France, smuggled colonial sugar was sold as beet sugar.

I fear, Mr. President, I have already too long claimed your attention to a subject which probably may not be interesting to many here present. I have followed the introduction and

the progress of this industry step by step ; I have slightly touched on the cultivation of the root, as also on the manufacturing process ; and I will now point out to you some of the blessings which have resulted.

Besides the production of the primary article of about 200,000 tons of sugar in France, which at £25 per ton is worth £5,000,000 sterling, for which 120,000 hectares, or 800,000 acres, are under cultivation, employment is furnished to 70,000 men, women, and children, in 398 manufactories.

The following table shows the annual quantity of tons manufactured since 1840 :—

1840	.....	22,000	1853	.....	72,000
1841	.....	26,000	1854	.....	70,000
1842	.....	30,000	1855	.....	77,000
1843	.....	28,000	1856	.....	90,000
1844	.....	30,000	1857	.....	80,000
1845	.....	37,000	1858	.....	89,000
1846	.....	49,000	1859	.....	91,000
1847	.....	60,000	1860	.....	120,000
1848	.....	56,000	1861	.....	143,000
1849	.....	44,000	1862-3	.....	175,000
1850	.....	64,000	1863-4	.....	180,000
1851	.....	68,000	1864-5	.....	165,000
1852	.....	70,000			

The almost equally important branch of distilling from the beet itself, and also from the molasses, must not be overlooked. Since 1855 the farmers have added distilleries to their farms, and the results have again been an increase in the feeding of cattle and the employment of hands.

The cultivation of beet-root for distilling has changed certain lands in the centre of France from barrenness to fertility, producing most abundant crops of cereals ; while other lands, which before the introduction of this industry produced only 19 hectolitres an acre, yield now 27 hectolitres. Of the 90,000 hectares, or 225,000 acres, occupied by the

farmers in these districts, only 1,447 hectares of beet were formerly sown for the use of cattle; at the present, there are sown for that purpose 21,405 hectares. Formerly only 4,202 hectares of wheat were sown, and now 9,290 hectares. Cattle has increased beyond conception, from 6,995 to 40,656; so that, in making sugar and spirits from beet-root, meat is also actually produced. The manufacturers and distillers, at certain periods, throw such enormous quantities of fattened stock into the market, that prices fall considerably.

We must also not omit to notice that for the distilling only, in the same districts, 25,887 hands owe permanent occupation, winter and summer.

Since 1855 the production of spirits has gradually increased, until in 1863 it reached the enormous quantity of 113,000 pipes, representing a value of one-and-a-half million sterling. For this production, Mr. Darblay, probably the greatest miller in Europe, whose name is favourably known on our Corn Exchange, in his speech the other day in the Corps Legislatif, for the purpose of procuring a reduction of the duty on spirits, stated that 500 farms, embracing 900,000 hectares [this number must certainly be an error in print, meaning 90,000 hectares, or 225,000 acres], are in cultivation.

Nor must I omit to point out to you the importance of the pulp, of which in the Department of the North alone 800,000 tons are produced; this, at the low price of £1 per ton, represents a value of £800,000. This pulp is however of far greater importance than its money value for the fattening of cattle, for thus suitable manure is produced, to improve the land for the cultivation of cereals. The rent of suitable land has now attained to the high rate of two hundred francs per hectare, or £3 per acre, and I need not say that the selling price of estates has advanced in like proportion.

I pass by the minor articles of potashes, &c., manufactured from the residue after the distillation of the spirit, which shows, however, that nothing is lost.

Thus we find that after about three quarters of a century the prediction of Achard has been literally and fully realised.

The benefits created in a country by such a marvellous industry are prodigious. As the manufacturing season only lasts from the beginning of October to the end of January, it requires a large number of hands, taken from amongst the field labourers, bricklayers, plasterers and other trades, whose regular employments are stopped during the rigorous winter months.

I think it unnecessary to enlarge any further on the advantages which are derived from this branch of industry, both agricultural and manufacturing. May I not therefore express my astonishment that industrious and enterprising England is almost the only country where the beet is not cultivated for these purposes. Even Spain, though possessing Cuba and Manilla, has nevertheless begun the cultivation of the beet-root by establishing a dozen manufactories. Holland also, that next to England has the greatest Sugar Colonies, producing about 200,000 tons, and consequently having an interest identical with that of England, has lately commenced the same industry.

When I consider the backward state of agriculture and the deplorable absence of manufacturing industry in Ireland, particularly in the West, it is indeed surprising that no effort has been made, by an association of capitalists, or by private individuals, to develop the agricultural resources of that fine country, in connexion with such manufactures as that of beet sugar. I am aware that serious obstacles exist, arising from the difficulty of collecting the proper revenue from excisable articles manufactured in the country. But when we see that France, Belgium, Holland, not

to speak of the German League, which have also to contend with this very same difficulty, have nevertheless emerged gloriously from this struggle, I do not see what should prevent our doing the same, as even now in Ireland an excise duty is collected on spirit there distilled, and beet sugar in France pays nearly double the duties levied at present in England, viz., 17s. on 1 cwt. of unrefined beet sugar. The arrangements for collecting the duties are as follows: they have *entrepôts* in the centres of the great growing and manufacturing districts, such as Lille, Valenciennes, Douai, Cambrai, and St. Quentin, and a great metropolitan *entrepôt* in Paris. The duty must either be paid before the sugar leaves the manufactory, or it must be placed in *entrepôt* within a certain short time after it is made. The example of France, therefore, tells powerfully in favour of my argument. It has been stated that an Irish beet crop would yield on the average nearly half as much more per acre than the French, the soil and climate being favourable for the growth of beet; while improvements in agriculture, united to British capital, would increase the production still more. At the time when beet-root was first tried in Ireland, an objection was made, which I consider totally fallacious, namely, that Irish beet sugar obtained by free labour could not compete with Colonial sugar raised by slave labour.

The growth of a plant in every country depends on temperature, amount of sunlight, and degree of moisture; the mean temperature of Ireland is higher than most of the corn-growing countries, but its mean summer and autumnal temperature are in general lower. Of all the principal corn-growing countries Ireland is the wettest; and this very circumstance, which is supposed to render Ireland not so fit as other countries for the growth of corn, makes it therefore peculiarly suited for the growth of crops which are cultivated on account of their bulbs, stems and roots. Besides, the

cultivation of this root improves the land for a rotation of crops, and the following rotation is the best recommended—1st, barley or wheat; 2nd, beet; 3rd, oats—thus three fields are kept under crops; and if four fields were employed, clover might be advantageously introduced after wheat.

The cultivation and manufacture of beet sugar in Europe recommends itself also by the following facts: 1. that cane sugar requires twice the amount of labour and thrice the time to vegetate which other crops require—2. the superior intelligence of European workmen—and 3. the facility of obtaining the newest machinery and requisite repairs.

It may not be inappropriate to give you a translation of an article which appeared, only last week, in a weekly French publication entirely devoted to sugar—*Journal des Fabricants de Sucre*. It was received by me when I was about closing this paper:—

“The Beet Root, besides producing 200,000 tons of Sugar, produces, at the same time, a mass of pulp beneficial to agriculture, which, excluding even all other food, is capable of nourishing, during one year, 50,000 head of cattle, or 500,000 sheep. The manure produced by these animals, added to the other residues of Sugar manufacturers, can fertilise every year 20,000 hectares, or 50,000 acres. The 420 manufacturers now making Sugar employ from 60,000 to 70,000 hands, representing an outlay of not less than £800,000 to £1,000,000 for labour during each season. The 250,000 or 300,000 acres on which the beet-root is now planted were once fallow grounds, or unfertile soil. The crops of wheat, far from being diminished, have increased in an equal ratio. No other part of France produces more cereals than the North, and this is the very country where beet-root is cultivated to the greatest extent. Everywhere, after the cultivation of beet-root, the land has yielded one-third heavier crops than previously; thus, in manufacturing Sugar, bread and meat are also increased, contributing largely to the public alimentation.”

I have now concluded my task, however imperfectly. I have given you the origin and progress of this important industry, which recommends itself so much to public attention, and have only to add that the production of sugar in Europe is one of the greatest glories of agricultural industry, and is closely affiliated to the necessary wants of modern society. A source of riches to the farmer, the producer of the primary matter, it is one of the greatest elements of national prosperity, in France and other countries, and the basis of honourably acquired fortunes by many who have devoted their energies to it. Without sugar, the new world would not have reached the splendour and colossal proportions which it has attained; and I may safely state that, through the manufacturing of beet-root sugar, European agriculture has marched towards a new industrial progress. I would say to Great Britain, Go and do likewise.

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#### ADDENDUM.

Another season of production and manufacture has passed since this paper was written, and the progress predicted for this great branch of industry has been fully realised. France has produced a more abundant crop of roots, and these richer in saccharine matter, than in any preceding year. The average quantity is computed at 40 tons per hectare, or 16 tons per acre. It is estimated that not less than 220,000 tons of sugar will be manufactured, amounting to five millions sterling, independent of the large quantity of spirit and other products derived from the same plant.

Since last year, the number of manufactories has increased from 398 to 418.

Belgium will also produce 30,000 tons; Holland, 5,000 tons; and the Zollverein and other countries in Europe, an average crop. The entire production in Europe is estimated at 530,000 tons.

The opinion which I expressed, that our refiners would make more considerable use of it, is also fully verified. Not less than 30,000 tons have already arrived in the United Kingdom since October (of which London alone has taken one-third), and at least an equal quantity has still to be shipped for this country, in payment for which France will receive one-and-a-half million sterling.

It is for the economists of Great Britain, and particularly of Ireland, to determine whether the introduction of this industry on our farms would be desirable.



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Canadian Journal of Industry, Nos. 50 to 52 <span style="display: block; text-align: right;"><i>The Canadian Institute.</i></span>	<i>The Canadian Institute.</i>
Silliman's Journal, 4 numbers . . . . .	<i>The Editor.</i>
Quarterly Journal of the Geological Society, no. 78 . . . . .	<i>The Society.</i>
Professor Ramsay's Address . . . . .	<i>The Author.</i>
Proceedings of the Royal Geographical Society, vol. 8, nos. 3 to 5 . . . . .	<i>The Society.</i>
Journal of the Linnean Society, vol. 8, nos. 29 and 30 . . . . .	<i>The Society.</i>
Reminiscences of Old Oak Panelling at Gunrog, by M. C. Jones . . . . .	<i>The Author.</i>
Boston Journal of Natural History, vol. 7, no. 4 <span style="display: block; text-align: right;"><i>Boston Society.</i></span>	<i>Boston Society.</i>
Proceedings of the American Philosophical Society, vol. 9, no. 70 . . . . .	<i>The Society.</i>
Journal of the Franklin Institute, nos. 59 to 64 . . . . .	<i>The Institute.</i>
Proceedings of the American Geographical and Statistical Society, vol. 2, no. 2 . . . . .	<i>The Society.</i>
Schriften de Konigl, Physicalisch-Okonomischen Gesellschaft, 1862, 2 parts . . . . .	<i>The Society.</i>
Rendiconti de Reali Instituto Lombardo, vol. 1, part 3 . . . . .	<i>The Institute.</i>
The Course and Current of Architecture, by S. Huggins . . . . .	<i>The Author.</i>

**OCTOBER 17th.**

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Journal of the Society of Arts, May to October . *The Society.*

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Transactions of the Royal Irish Academy (vol. 24, 8 parts), Polite Literature, Antiquity, Science . . . . .	<i>The Academy.</i>
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Annals of the Lyceum of Natural History of New York, vol. 8, no. 1 . . . . .	<i>The Lyceum.</i>
Introductory Report of the Commissioners of Patents for 1868 . . . . .	<i>Patent Office, Washington.</i>
Patent Office Reports, 1861, vols. 1 and 2 . . . . .	<i>Patent Office, Washington.</i>
Quarterly Journal of the Geological Society, no. 79 . . . . .	<i>The Society.</i>
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Monthly Notices of the Royal Astronomical Society . . . . .	<i>The Society.</i>
Bulletin de la Société des Sciences Naturelles de Luxembourg, tome 6me, 1868 . . . . .	<i>The Society.</i>

## NOVEMBER 14th.

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Greenwich Observations, 1862, 4to	<i>From the Admiralty Commissioners.</i>
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Transactions of the Botanical Society of Edin- burgh, vol. 8, part 1	<i>The Society.</i>
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Journal of the Architectural, Archæological, and Historic Society of Chester, part 7	<i>The Society.</i>
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Journal of the Chemical Society, Nov., 1864	<i>The Society.</i>
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Statistics of Lunacy, 1864	
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Monthly Notices of the Royal Astronomical Society, vol. 25, no. 1 . . . . .	<i>The Society.</i>
Proceedings of the Royal Institution of Great Britain, nos. 89 and 40 . . . . .	<i>The Institution.</i>
Canadian Journal of Industry, no. 5 .	<i>The Canadian Institute.</i>
JANUARY 28rd.	
Reale Istituto Lombardo, Rendiconti, Classe di Scienze Math., 4, 5, and 6; Classe di Lettere, &c., 8, 4, 5, and 6; Annuario del Istituto .	<i>The Institute.</i>
Journal of the Chemical Society, December, 1864 . . . . .	<i>The Society.</i>
Journal of the Linnæan Society, no. 80 . . .	<i>The Society.</i>
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Transactions of the Royal Scottish Society of Arts, vol. 6, part 4 . . . . .	<i>The Society.</i>
FEBRUARY 6th.	
Proceedings of the Royal Society, no. 71 . . .	<i>The Society.</i>
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Journal of the Society of Arts, nos. 467, 8. . .	<i>The Society.</i>
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Journal of the Chemical Society, Jan., 1865 .	<i>The Society.</i>
Journal of the Linnæan Society; Botany, no. 82	<i>The Society.</i>
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Proceedings of the British Meteorological Society, vol. 2, no. 16 . . . . .	<i>The Society.</i>
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Silliman's American Journal, no. 115 . . .	<i>The Editor.</i>
<b>MARCH 6th.</b>	
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Journal of the Royal Dublin Society, nos. 82, 83	<i>The Society.</i>
Journal of the Society of Arts . . . . .	<i>The Society.</i>
<b>MARCH 20th.</b>	
Report of British Association, Newcastle, 1863 .	<i>Dr. Inman.</i>
Monthly Notices of the Royal Astronomical Society, vol. 25, no. 4 . . . . .	<i>The Society.</i>
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Proceedings of the Royal Society, no. 72 .	<i>The Society.</i>
Present Position and Future Prospects of Geology, by Dr. Page . . . . .	<i>The Author.</i>
Journal of the Society of Arts . . . . .	<i>The Society.</i>
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Journal of the Chemical Society, Feb., 1865 .	<i>The Society.</i>

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Proceedings of the Royal Geographical Society, vol. 9, no. 2 . . . . .	<i>The Society.</i>

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Journal of Society of Arts, no. 646, vol. 18 .	<i>The Society.</i>
On Building Society Reform, by J. McFarlane Gray, several copies . . . . .	<i>The Author.</i>



APPENDIX.

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THE KABBALAH:

ITS

DOCTRINES, DEVELOPMENT, AND LITERATURE.

AN ESSAY.

BY

CHRISTIAN D. GINSBURG, LL.D.

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## PREFACE.

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WITH the exception of the notice in Basnage's *Histoire des Juifs*, which has been translated into English,\* and the defective descriptions given by Allen† and Etheridge‡ of the Kabbalah in their respective works, no Treatise exists in English on this esoteric doctrine. It is this desideratum in the literature of our language which led me to bring the subject before the Literary and Philosophical Society of Liverpool, in the form of an Essay. Intending it to be a guide for those who wish to be initiated into the mysteries of this theosophy, I have aimed to be as elementary as possible in the Essay, and have, therefore, frequently explained allusions to points in Jewish

\* *The History of the Jews*, by M. Basnage, translated into English by Thom. Taylor, A.M. London, 1708.

† *Modern Judaism*, pp. 69-96, second edition. London, 1830.

‡ *Jerusalem ad Tiberias; Sora ad Cordova*, p. 300, &c. London, 1856.

history and literature with which the more advanced scholar is perfectly familiar, but which are unknown to tyros in these departments.

If, in the perusal of this Manual, the student experiences any difficulty in understanding the technical terms of the Kabbalah, or if he is unable to remember the meaning of any phrases, he will find the difficulty obviated by referring to the Indices and Glossary, which have been appended to aid him in this respect.

For the Index of matters I am, to a great extent, indebted to my friend, JOHN NEWTON, Esq., M.R.C.S.E.

*Liverpool, July 7th, 1865.*

## THE KABBALAH.

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BY THE REV. CHRISTIAN D. GINSBURG, LL.D.

(*Read 19th October, 1863.*)

### I.

A SYSTEM of religious philosophy, or more properly of theosophy, which has not only exercised for hundreds of years an extraordinary influence on the mental development of so shrewd a people as the Jews, but has captivated the minds of some of the greatest thinkers of Christendom in the sixteenth and seventeenth centuries, claims the greatest attention of both the philosopher and the theologian. When it is added that among its captives were Raymond Lully, the celebrated scholastic, metaphysician and chemist (died 1315); John Reuchlin, the renowned scholar and reviver of oriental literature in Europe (born 1455, died 1522); John Picus di Mirandola, the famous philosopher and classical scholar (1463-1494); Cornelius Henry Agrippa, the distinguished philosopher, divine and physician (1486-1535); John Baptist von Helmont, a remarkable chemist and physician (1577-1644); as well as our own countrymen Robert Fludd, the famous physician and philosopher (1574-1637), and Dr. Henry More (1614-1687); and that these men, after restlessly searching for a scientific system which should disclose to them "the deepest depths" of the Divine nature, and show them the real tie which binds all things together, found the cravings of their minds satisfied by this theosophy, the claims of the Kabbalah on the attention of students in literature and philosophy will readily be admitted. The claims of the Kabbalah, however, are not restricted to the literary

man and the philosopher : the poet too will find in it ample materials for the exercise of his lofty genius. How can it be otherwise with a theosophy which, we are assured, was born of God in Paradise, was nursed and reared by the choicest of the angelic hosts in heaven, and only held converse with the holiest of man's children upon earth. Listen to the story of its birth, growth and maturity, as told by its followers.

The Kabbalah was first taught by God himself to a select company of angels, who formed a theosophic school in Paradise. After the fall the angels most graciously communicated this heavenly doctrine to the disobedient child of earth, to furnish the protoplasts with the means of returning to their pristine nobility and felicity. From Adam it passed over to Noah, and then to Abraham, the friend of God, who emigrated with it to Egypt, where the patriarch allowed a portion of this mysterious doctrine to ooze out. It was in this way that the Egyptians obtained some knowledge of it, and the other Eastern nations could introduce it into their philosophical systems. Moses, who was learned in all the wisdom of Egypt, was first initiated into it in the land of his birth, but became most proficient in it during his wanderings in the wilderness, when he not only devoted to it the leisure hours of the whole forty years, but received lessons in it from one of the angels. By the aid of this mysterious science the lawgiver was enabled to solve the difficulties which arose during his management of the Israelites, in spite of the pilgrimages, wars and the frequent miseries of the nation. He covertly laid down the principles of this secret doctrine in the first four books of the Pentateuch, but withheld them from Deuteronomy. This constitutes the former the man, and the latter the woman. Moses also initiated the seventy elders into the secrets of this doctrine, and they again transmitted them from hand to hand. Of all who formed the

unbroken line of tradition, David and Solomon were most initiated into the Kabbalah. No one, however, dared to write it down, till Simon ben Jochai, who lived at the time of the destruction of the second Temple. Having been condemned to death by Titus, Rabbi Simon managed to escape with his son and concealed himself in a cavern where he remained for twelve years. Here, in this subterranean abode, he occupied himself entirely with the contemplation of the sublime Kabbalah, and was constantly visited by the Prophet Elias, who disclosed to him some of its secrets which were still concealed from the theosophical Rabbi. Here, too, his disciples resorted to be initiated by their master into these divine mysteries; and here, Simon ben Jochai expired with this heavenly doctrine in his mouth, whilst discoursing on it to his disciples. Scarcely had his spirit departed, when a dazzling light filled the cavern, so that no one could look at the Rabbi; whilst a burning fire appeared outside, forming as it were a sentinel at the entrance of the cave, and denying admittance to the neighbours. It was not till the light inside, and the fire outside, had disappeared, that the disciples perceived that the lamp of Israel was extinguished. As they were preparing for his obsequies, a voice was heard from heaven, saying, "Come ye to the marriage of Simon b. Jochai, he is entering into peace, and shall rest in his chamber!" A flame preceded the coffin, which seemed enveloped by, and burning like fire. And when the remains were deposited in the tomb, another voice was heard from heaven, saying, "This is he who caused the earth to quake, and the kingdoms to shake!" His son, R. Eliezer, and his secretary, R. Abba, as well as his disciples, then collated R. Simon b. Jochai's treatises, and out of these composed the celebrated work called *Sohar* (סוהר) i.e., *Splendour*, which is the grand storehouse of Kabbalism.

From what has been said, it will be seen that the followers

- ✓ of this secret doctrine claim for it a pre-Adamite existence, and maintain that, ever since the creation of the first man, it has been received uninterruptedly from the hands of the patriarchs, the prophets, &c. It is for this reason that it is called *Kabbalah* (קבלה from קבל to receive) which primarily denotes *reception*, and then a *doctrine received by oral tradition*. The Kabbalah is also called by some *Secret Wisdom* (חכמה נסתרה), because it was only handed down by tradition through the initiated, and is indicated in the Hebrew Scriptures by signs which are hidden and unintelligible to those who have not been instructed in its mysteries. From the initial letters of this name, this theosophic system
- ✓ is also denominated *Grace* (חסד=חסד נסתרה). Vague and indefinite as this name may seem to the uninitiated, inasmuch as it conveys no idea whatever of the peculiar doctrines of the system, but simply indicates the manner in which they have been transmitted, it is nevertheless the classical and acknowledged appellation of this theosophy. The difference between the word *Kabbalah* (קבלה *receptio*) and the cognate term *Massorah* (מסורה *traditio*, from מסר to transmit)—which denotes *the traditionally transmitted* various readings of the Hebrew Scriptures—is, that the former expresses *the act of receiving*, which in this technical sense could only be on the part of one who has reached a certain period of life, as well as a certain state of sanctity, implying also a degree of secrecy; whilst the latter signifies *the act of giving over, surrendering*, without premising any peculiar age, stage of holiness, or degree of secrecy. The name, therefore, tells us no more than that this theosophy has been received traditionally. To ascertain its tenets we must analyze the system itself or the books which propound it; and to this task we now betake ourselves.

The cardinal doctrines of the Kabbalah are mainly designed to solve the grand problems about (I) The nature of the

Supreme Being, (II) The cosmogony, (III) The creation of angels and man, (IV) The destiny of man and the universe, and (V) To point out the import of the Revealed Law. Assenting and consenting to the declarations of the Hebrew Scriptures about the unity of God (Exod. xx, 3; Deut. iv, 35, 39; vi, 4; xxxii, 39), his incorporeity (Exod. xx, 4; Deut. iv, 15; Ps. xiv, 18), eternity (Exod. iii, 14; Deut. xxxii, 40; Isa. xli, 4; xliii, 10; xlv, 6; xlviii, 12), immutability (Mal. iii, 6), perfection (Deut. xxxii, 4; 2 Sam. xxii, 31; Job xxxviii, 16; Ps. xviii, 31), infinite goodness (Exod. xxxiv, 6; Ps. xxv, 10; xxxiii, 5; c, 5; cxlv, 9), the creation of the world in time according to God's free will (Gen. i, 1), the moral government of the universe and special providence, and to the creation of man in the image of God (Gen. i. 27), the Kabbalah seeks to explain the transition from the infinite to the finite; the procedure of multifariousness from an absolute unity, and of matter from a pure intelligence; the operation of pure intelligence upon matter, in spite of the infinite gulf between them; the relationship of the Creator to the creature, so as to be able to exercise supervision and providence. It, moreover, endeavours to show how it is that the Bible gives names and assigns attributes and a form to so spiritual a Being; how the existence of evil is compatible with the infinite goodness of God, and what is the Divine intention about this creation.

In our analysis of the Kabbalistic doctrines on these grand problems, we shall follow the order in which they have been enumerated, and accordingly begin with the lucubrations on the Supreme Being and the Emanations.

*I. The Supreme Being and the doctrine and classification of the Emanations, or Sephiroth.*

Being boundless in his nature—which necessarily implies that he is an absolute unity and inscrutable, and that there

is nothing without him, or that the  $\tau\acute{o} \pi\alpha\nu$  is in him,<sup>1</sup>—God is called EN SOPH (אין סוף) = *ἄτελος Endless, Boundless*.<sup>2</sup> In this boundlessness, or as *the En Soph*, he cannot be comprehended by the intellect, nor described in words, for there is nothing which can grasp and depict him to us, and as such he is, in a certain sense, not existent (יֵשׁ), because, as far as our minds are concerned, that which is perfectly incomprehensible does not exist.<sup>3</sup> To make his existence perceptible, and to render himself comprehensible, *the En Soph*, or *the Boundless*, had to become active and creative. But *the En Soph* cannot be the direct creator, for he has neither will, intention, desire, thought, language, nor action, as these properties imply limit and belong to finite beings, whereas *the En Soph* is boundless. Besides, the imperfect and circumscribed nature of the creation precludes the idea that the world was created or even designed by him, who can have no will nor produce anything but what is like himself, boundless and

1 דע כי אין סוף לא יכנס בהדרהור וכל שכן בדבור ואף על פי שיש לו רמז בכל דבר שאין חוץ  
 Commentary of the ten Sephiroth, ed. Berlin, p. 4 a. This doctrine, however, that everything is in the Deity is not peculiar to the Kabbalah, it has been propounded by the Jews from time immemorial, before the Kabbalah came into existence, as may be seen from the following passage in the *Midrash*. "The Holy One, blessed be he, is the space of the universe, but the universe is not his space (אין מקומו של עולם ואין העולם מקומו). R. Isaac submitted: from the passage אלהי קדם (Deut. xxxiii, 27), we do not know whether the Holy One, blessed be he, is the habitation of the universe or the universe his habitation; but from the remark אלהי מקום *Lord thou art the dwelling place* (Ps. xc, 1), it is evident that the Holy One, blessed be he, is the dwelling place of the universe, and not the universe his dwelling place." (*Bereshith Rabba*, § lxviii.) To the same effect is the remark of Philo, "God himself is the space of the universe, for it is he who contains all things." (*De Somnii*, i.) It is for this reason that God is called מקום or המקום =  $\delta \tau\acute{o}\sigma\phi\omicron\varsigma$ , locus, and that the Septuagint renders יראו את אלהי ישראל וגו' (Exod. xxiv, 10), by  $\kappa\alpha\iota \epsilon\lambda\theta\omicron\nu \tau\acute{o}\nu \tau\acute{o}\sigma\phi\omicron\varsigma$ , οὗ εἰσῆλκει ὁ θεός, which has occasioned so much difficulty to interpreters.

2 לא דע ולא אחרים מה דהוי בראשית דא דלא אחדק בהכחמא ולא כסוכלתו ובגן כך  
 (Sohar iii, 233 b.) To the same effect is the ancient expository work on the doctrine of the Emanations which we quoted in the preceding note, comp. מה שאינו מוגבל קרוי אין סוף והוא ההשואה גמורה באחדות השלמה שאין בה שני ואם  
 Commentary on the ten Sephiroth, ed. Berlin, p. 2 a.

3 דע כי אין סוף אין לומר כי יש לו רצון ולא כונה ולא חסך ולא מחשבה ולא דבור ומעשה  
*ibid.*, 4 a.



point: the Infinite was entirely unknown, and diffused no light before this luminous point violently broke through into vision;" (*Sohar*, i, 15 a). IV, *the White Head* (רישא הוורה); V, *the Long Face, Macroprosopon* (אריד אנפין), because the whole ten *Sephiroth* represent the Primordial or the Heavenly Man (אדם עילאה), of which the first *Sephira* is the head; VI, *The Inscrutable Height* (רום מעלה), because it is the highest of all the *Sephiroth* proceeding immediately from *the En Soph*. Hence, on the passage "Go forth, O ye daughters of Zion, and behold the King of Peace<sup>6</sup> with the Crown!" (*Song of Solomon* iii, 16) the *Sohar* remarks, "But who can behold the King of Peace, seeing that He is incomprehensible, even to the heavenly hosts? But he who sees the Crown sees the glory of the King of Peace." (*Sohar* ii. 100 b.) And, VII, it is expressed in the Bible by the Divine name *Ehejeh*, or *I Am* (אהיה Exod. iii, 4), because it is absolute being, representing the Infinite as distinguished from the finite, and in the angelic order, by the celestial beasts of Ezekiel, called *Chajoth* (חיות). The first *Sephira* contained the other nine *Sephiroth*, and gave rise to them in the following order:—At first a masculine or active potency, designated *Wisdom* (חכמה), proceeded from it. This *Sephira*, which among the divine names is represented by *Jah* (יה Isa. xxvi, 4), and among the angelic hosts by *Ophanim* (אפנים *Wheels*), sent forth an opposite, *i. e.* a feminine or passive, potency, denominated *Intelligence* (בינה), which is represented by the divine name *Jehovah* (יהוה), and angelic name *Arelim* (אראלים), and it is from a union of these two *Sephiroth*, which are also called *Father* (אבא) and *Mother* (אמא), that the remaining seven *Sephiroth* proceeded. Or, as the *Sohar* (iii, 290 a) expresses it, "When the Holy Aged,

<sup>6</sup> The *Sohar*, like the Talmud, generally renders the words מלך שלום *King Solomon*; while verses in the *Song of Songs*, by מלמא די שלמא דיליה *the King to whom peace belongs*.

the Concealed of all Concealed, assumed a form, he produced everything in the form of male and female, as the things could not continue in any other form. Hence Wisdom, which is the beginning of development, when it proceeded from the Holy Aged, emanated in male and female, for Wisdom expanded, and Intelligence proceeded from it, and thus obtained male and female—viz., Wisdom, the father, and Intelligence, the mother, from whose union the other pairs of *Sephiroth* successively emanated." These two opposite potencies—viz., Wisdom (הכמה) and Intelligence (בינה)—are joined together by the first potency, the Crown (כתר); thus yielding the first triad of the *Sephirath*.

From the junction of the foregoing opposites emanated again the masculine or active potency, denominated *Mercy* or *Love*, (חסד), also called *Greatness* (גדולה), the fourth *Sephira*, which among the divine names is represented by *El* (אל), and among the angelic hosts by *Chashmalim* (חשמלים, Comp. Ezek. i, 4). From this again emanated the feminine or passive potency, *Justice* (דין), also called *Judicial Power* (גבורה), the fifth *Sephira*, which is represented by the divine name *Eloha* (אלה), and among the angels by *Seraphim* (שרפים, Isa. vi, 6); and from this again the uniting potency, *Beauty* or *Mildness* (תפארת), the sixth *Sephira*, represented by the divine name *Elohim* (אלהים), and among the angels by *Shinanim* (שנאנים, Ps. lxxviii, 18). Since without this union the existence of things would not be possible, inasmuch as mercy not tempered with justice, and justice not tempered with mercy would be unendurable: and thus the second trinity of the *Sephiroth* is obtained.

The medium of union of the second trinity, *i. e.* *Beauty* (תפארת), the sixth *Sephira*, beamed forth the masculine or active potency, *Firmness* (נצח), the seventh *Sephira*, corresponding to the divine name *Jehovah Sabaoth* (יהוה צבאות), and among the angels to *Tarshishim* (תרשישים, Dan. x. 6);

this again gave rise to the feminine or passive potency, *Splendour* (הוד), the eighth *Sephira*, to which answer the divine name *Elohim Sabaoth* (אלהים צבאות), and among the angels *Benei Elohim* (בני אלהים, Gen. vi. 4); and from it again, emanated *Foundation* or *the Basis* (יסוד), the ninth *Sephira*, represented by the divine name *El Chai* (אל חי), and among the angelic hosts by *Ishim* (אשים, Ps. civ. 4), which is the uniting point between these two opposites—thus yielding the third trinity of *Sephiroth*. From the ninth *Sephira*, *the Basis* (יסוד) of all, emanated the tenth, called *Kingdom* (מלכות), and *Shechinah* (שכינה), which is represented by the divine name *Adonai* (אדוני), and among the angelic hosts by *Cherubim* (כרובים). The table on the opposite page exhibits the different names of the *Sephiroth*, together with the several names of God and the angels, which correspond to them.

From this representation of each triad, as consisting of a threefold principle, viz., the two opposites, masculine and feminine, and the uniting principle, the development of the *Sephiroth*, and of life generally, is symbolically called *the Balance* (מתקלא), because the two opposite sexes, are compared with the two opposite scales, and the uniting *Sephira* is compared with the beam which joins the scales, and indicates its equipoise.

Before we enter into further particulars about the nature, operation, and classification of these *Sephiroth*, we shall give the *Sohar's* speculations about the Supreme Being, and its account of the origin of the *Sephiroth*, and their relationship to the Deity.

The prophet Elias having learned in the heavenly college the profound mystery and true import of the words in Isa. xl, 25, 26, "To whom will ye liken me, and shall I be equal? saith the Holy One. Lift up your eyes on high, and behold who (מי) hath created these things (אלה)," revealed to R. Simon b. Jochai that God in his absolute nature is unknown

THE TEN SEPHIROTH.	THE TEN CORRESPONDING NAMES OF THE DEITY.	THE TEN CORRESPONDING CLASSES OF ANGELS.	THE TEN CORRESPONDING MEMBERS OF THE HUMAN BODY.
<p>1. כתר, CROWN.</p> <p>2. קטן, THE AGED.</p> <p>3. נקודת ראשונה, PRIMORDIAL POINT.</p> <p>4. נקודה שטוחה, SMOOTH POINT.</p> <p>i. { 5. רש"ת הוהו, WHITE HEAD.</p> <p>6. ארץ אנוש, MACROPROPOH.</p> <p>7. אדם עליון, HEAVENLY MAN.</p> <p>8. רם כעלם, INSCRUTABLE HEIGHT.</p> <p>ii. חכמה, σοφία, WISDOM.</p> <p>iii. בינה, νῦν, INTELLIGENCE.</p> <p>iv. { 1. חסד, ἡσέ, LOVE.</p> <p>2. דין, JUSTICE.</p> <p>3. דבור, STRENGTH.</p> <p>v. { 1. דין, JUDGMENT.</p> <p>2. דין, JUSTICE.</p> <p>3. דבור, STRENGTH.</p> <p>vi. חסד, BEAUTY.</p> <p>vii. נצח, FIRMNESS.</p> <p>viii. דין, SPLENDOR.</p> <p>ix. חסד, FOUNDATION.</p> <p>x. { 1. מלכות, βασιλεία sc. τῆς οὐρανῶν,</p> <p>2. שכינה, SHECHINAH.</p>	<p>אנוכי, I AM (Exod. iii. 4).</p> <p>יהוה, JAH (Isa. xlv. 4).</p> <p>יהוה, JEHOVAH.</p> <p>אני, THE MIGHTY ONE.</p> <p>אני, THE ALMIGHTY.</p> <p>אלוהים, GOD.</p> <p>יהוה צבאות, JEHOVAH SABAOth.</p> <p>אלוהים צבאות, GOD SABAOth.</p> <p>אני, MIGHTY LIVING ONE.</p> <p>אני, THE LORD.</p>	<p>זוט, ζῶν.</p> <p>דמנים, δαίμονες.</p> <p>אנא, ARELIM (Isa. xxxiii. 7).</p> <p>חשכלים, CHASERALIM (Ezek. i. 4).</p> <p>שרפים, SERAPHIM (Isa. vi. 7).</p> <p>שטנים, SHANANIM (Ps. lxxviii. 18).</p> <p>תרששים, TARSHISHIM (Dan. x. 6).</p> <p>אנא, THE SONS OF GOD (Gen. vi. 4).</p> <p>שטן, ISHIM (Ps. civ. 4).</p> <p>כרובים, CHERUBIM.</p>	<p>HEAD.</p> <p>BRAINS.</p> <p>HEART.</p> <p>RIGHT ARM.</p> <p>LEFT ARM.</p> <p>CHEST.</p> <p>RIGHT LEG.</p> <p>LEFT LEG.</p> <p>GENITAL ORGANS.</p> <p>UNION OF THE WHOLE BODY.</p>

and incomprehensible, and hence, in a certain sense, non-existent; that this *Who* (אלה *unknown subject*) had to become active and creative, to demonstrate his existence, and that it is only by these (אלה) works of creation that he made himself known to us. It is therefore the combination of the unknown *Who* (מי) with *these visible* (אלה) works that showed him to be God (אלהים) which is produced by מ transposed, *i. e.* ים, and united with אלה). Or, as it is in the language of the Kabbalah;—

“Before he gave any shape to this world, before he produced any form, he was alone, without a form and resemblance to anything else. Who then can comprehend him how he was before the creation, since he was formless? Hence it is forbidden to represent him by any form, similitude, or even by his sacred name, by a single letter or a single point; and to this the words ‘Ye saw no manner of similitude on the day that the Lord spake unto you’ (Deut. iv, 15)—*i.e.* ye have not seen anything which you could represent by any form or likeness—refer. But after he created the form of the *Heavenly Man* (אדם עלאה), he used it as a chariot (מרכבה) wherein to descend, and wishes to be called by this form, which is the sacred name Jehovah. He wishes to be known by his attributes, and each attribute separately; and therefore had himself called the God of Mercy, the God of Justice, Almighty, God of Sabaoth, and the Being. He wishes thereby to make known his nature, and that we should see how his mercy and compassion extend both to the world and to all operations. For if he had not poured out his light upon all his creatures, how could we ever have known him? How could the words be fulfilled, ‘The whole earth is full of his glory’ (Isa. vi, 3)? Woe be to him who compares him with his own attributes! or still worse with the son of man whose foundation is in the dust, who vanishes and is no more! Hence, the form in which we delineate him simply describes

each time his dominion over a certain attribute, or over the creatures generally. We cannot understand more of his nature than the attribute expresses. Hence, when he is divested of all these things, he has neither any attribute nor any similitude or form. The form in which he is generally depicted is to be compared to a very expansive sea; for the waters of the sea are in themselves without a limit or form, and it is only when they spread themselves upon the earth that they assume a form (רָכוּץ). We can now make the following calculation: the *source* of the sea's water and the *water stream* proceeding therefrom to spread itself are *two*. A great reservoir is then formed, just as if a huge hollow had been dug; this reservoir is called sea, and is *the third*. The unfathomable deep divides itself into *seven streams*, resembling seven long vessels. The source, the water stream, the sea and the seven streams make together *ten*. And when the master breaks the vessels which he has made, the waters return to the source, and then only remain the pieces of these vessels, dried up and without any water. It is in this way that the Cause of Causes gave rise to the *ten Sephiroth*. The Crown is the source from which streams forth an infinite light: hence the name *En Soph* (אין סוף) = *infinite*, by which the highest cause is designated: for it then had neither form nor shape, and there is neither any means whereby to comprehend it, nor a way by which to know it. Hence it is written, 'Seek not out the things that are too hard for thee, neither search the things that are above thy strength.' (Ecclus. iii, 21.) He then made a vessel, as small as a point, like the letter 'י', which is filled from this source (i.e. the *En Soph*). This is the source of wisdom, *wisdom itself* (חכמה), after which the Supreme Cause is called '*wise God*.' Upon this he made a large vessel like a sea, which is called *Intelligence* (בינה): hence the name '*intelligent God*.' It must, however, be remarked that God is wise, and through himself, for

wisdom does not derive its name through itself, but through the wise one who fills it with the light which flows from him, just as intelligence is not comprehended through itself, but through him who is intelligent and fills it with his own substance. God needs only to withdraw himself and it would be dried up. This is also the meaning of the words, "the waters have disappeared from the sea, and the bed is dry and parched up." (Job xiv, 11.) The sea is finally divided into seven streams, and the seven costly vessels are produced, which are called *Greatness* (גדולה), *Judicial Strength* (גבורה), *Beauty* (תפארת), *Firmness* (נצח), *Splendour* (הדר), *Foundation* (יסוד), and *Kingdom* (מלכות). Therefore is he called the Great or the Merciful, the Mighty, the Glorious, the God of victory, the Creator, to whom all praise is due, and the Foundation of all things. Upon the last attribute all the others are based as well as the world. Finally, he is also the King of the universe, for everything is in his power; he can diminish the number of the vessels, and increase in them the light which streams from them, or reduce it, just as it pleases him." (*Sohar*, i, 42 b, 43 a, section נב.)

In another place again the same authority gives the following description of the Deity and the emanation of the *Sephiroth*. "The Aged of the Aged, the Unknown of the Unknown, has a form and yet has no form. He has a form whereby the universe is preserved, and yet has no form, because he cannot be comprehended. When he first assumed the form [of the first *Sephira*], he caused nine splendid lights to emanate from it, which, shining through it, diffused a bright light in all directions. Imagine an elevated light sending forth its rays in all directions. Now if we approach it to examine the rays, we understand no more than that they emanate from the said light. So is the Holy Aged an absolute light, but in himself concealed and incomprehensible. We can only comprehend him through those luminous emanations (ספירות) which

again are partly visible and partly concealed. These constitute the sacred name of God." (*Idra Suta, Sohar*, iii, 288 a.)

Four things must be borne in mind with regard to the *Sephiroth*. I. That they were not created by, but emanated (נצלו) from, *the En Soph*; the difference between creation and emanation being, that in the former a diminution of strength takes place, whilst in the latter this is not the case.<sup>7</sup> II. That they form among themselves, and with *the En Soph*, a strict unity, and simply represent different aspects of one and the same being, just as the different rays which proceed from the light, and which appear different things to the eye, form only different manifestations of one and the same light. III. That since they simply differ from each other as the different colours of the same light, all the ten emanations alike partake of the perfections of *the En Soph*; and IV, that, as emanations from the Infinite, the *Sephiroth* are infinite and perfect like *the En Soph*, and yet constitute the first finite things.<sup>8</sup> They are infinite and perfect when *the En Soph* imparts his fulness to them, and finite and imperfect when the fulness is withdrawn from them, so that in this respect these ten *Sephiroth* exactly correspond to the double nature of Christ,—his finite and imperfect human nature and his infinite and perfect divine nature.

In their totality and unity these ten *Sephiroth* are not only denominated *the world of Sephiroth* (עולם הספירות) and *the world of Emanations* (עולם אצילות), but represent and are called the *Primordial or Archetypal Man* (אדם אדם קדמון = *πρωτόγονος*), and *the Heavenly Man* (אדם עילאה). In the figure, the Crown (כתר) is *the head*; Wisdom (חכמה), *the brains*; and Intelligence (בינה), which unites the two and

7 כי כל בראה שנופלין ממנה חתמם וחחסר . . . כח האצילות שנופלין ממנו ואינו חסר, *Commentary on the ten Sephiroth*, 2 b; 4 a.

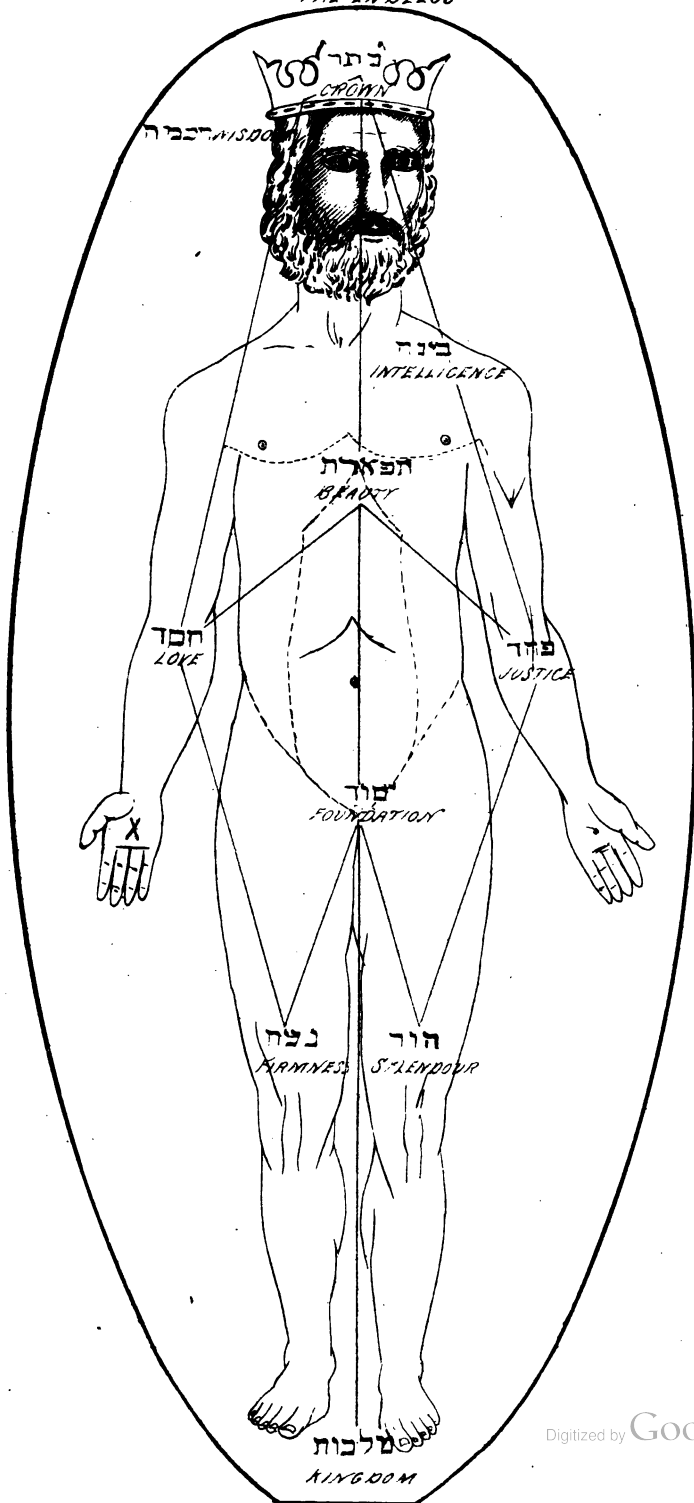
8 הספירות שהם כח השלם וזה החסר כשהם מקבלים מחשש חבא מהשלמותו הם כח שלם וחסר, חסר חסר יע בהם כח חסר לכך יע בהם כח לפעול בהשלמה ובחסרון

produces the first triad, is *the heart or the understanding*—thus forming *the head*. The fourth and fifth *Sephiroth*, i.e., Mercy (חסד) and Justice (פחד), are the two arms of the Lord, the former the right arm and the latter the left, one distributing life and the other death. And the sixth *Sephira*, Beauty (תפארת), which unites these two opposites and produces the second triad, is *the chest*; whilst the seventh and eighth *Sephiroth*,—i.e., Firmness (נצח) and Splendour (הוד), of the third triad,—are *the two legs*; and Foundation (יסוד), the ninth *Sephira*, represents the *genital organs*, since it denotes the basis and source of all things. Thus it is said “Every thing will return to its origin just as it proceeded from it. All marrow, all sap, and all power are congregated in this spot. Hence all powers which exist originate through the genital organs.” (*Sohar*, iii, 296 a.) Kingdom (מלכות), the tenth *Sephira*, represents the harmony of the whole Archetypal Man. The following is the archetypal figure of the ten *Sephiroth*.

It is this form which the prophet Ezekiel saw in the mysterious chariot, and of which the earthly man is a faint copy. Moreover, these *Sephiroth*, as we have already remarked, created the world and all things therein according to their own archetype or in the likeness and similitude of the *Heavenly Man* or *the World of Emanations*. But, before we propound the Kabbalistic doctrine of the creation of the world, it is necessary to describe a second mode in which the trinity of triads in the *Sephiroth* is represented, and to mention the appellations and offices of the respective triads.

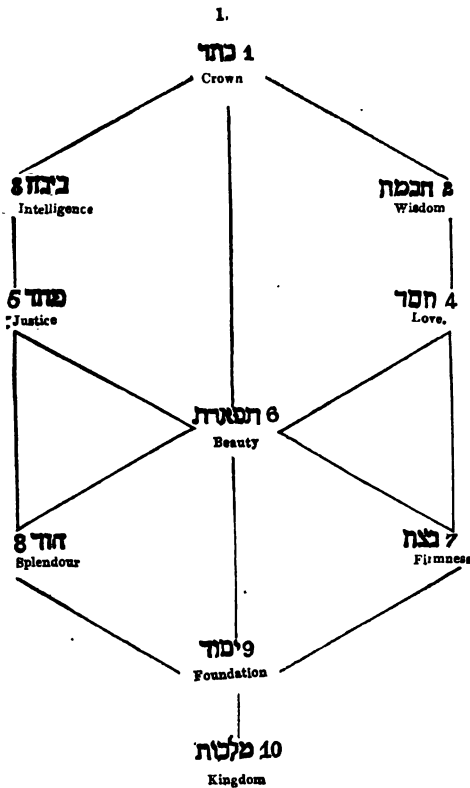
Now in looking at the *Sephiroth* which constitute the first triad, it will be seen that they represent *the intellect*; hence this triad is called *the Intellectual World* (עולם מושכל). The second triad, again, represents *moral qualities*; hence it is designated *the moral or Sensuous World* (עולם מורגש) : whilst the third triad represents *power and stability*, and

איין סוף  
THE ENDLESS



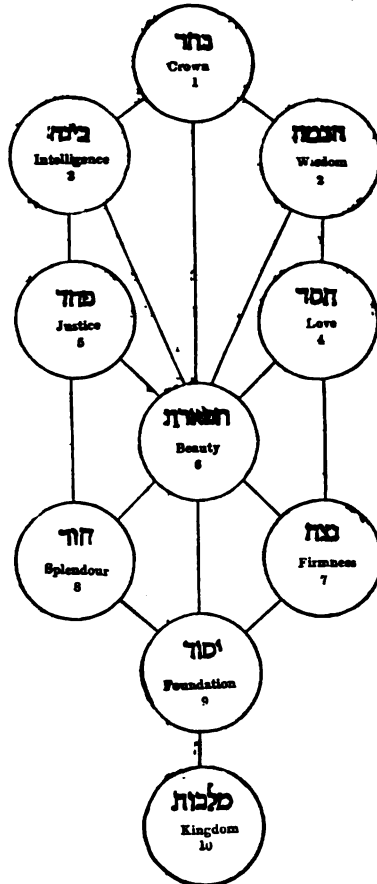


hence is designated *the Material World* (עולם המוטבע). These three aspects in which *the En Soph* manifested himself are called *the Faces* (אנפין and פרצופין = *πρόσωπον*, the two words are identical, the former being pure Aramaic, and the latter from the Greek). In the arrangement of this trinity of triads, so as to produce what is called the Kabbalistic tree, denominated *the Tree of Life* (עץ חיים), or simply *the Tree* (אילן), the first triad is placed above, the second and third are placed below, in such a manner that the three masculine *Sephiroth* are on the right, the three feminine on the left, whilst the four uniting *Sephiroth* occupy the centre, as shown in the following diagrams:—



## אין סוף

THE ENDLESS.



The three *Sephiroth* on the right, representing the principle of mercy (חסד), are called *the Pillar of Mercy* (סטרא ימינא עמודא דחסד); the three on the left, representing the principle of rigour (דין), are denominated *the Pillar of Judgment* (סטרא דשמאלא עמודא דדינה); whilst the four *Sephiroth* in the centre, representing mildness (רחמים),

are called *the Middle Pillar* (מִדְּבַר וְאֵמֻנָה). Each *Sephira* composing this trinity of triads is, as it were, a trinity in itself. I, It has its own absolute character; II, It receives from above; and III, It communicates to what is below it. Hence the remark, "Just as the Sacred Aged is represented by the number three, so are all the other lights (*Sephiroth*) of a threefold nature." (*Sohar*, iii, 288 b.) Within this trinity in each unit and trinity of triads there is a trinity of units, which must be explained before we can propound the Kabbalistic view of the cosmogony.

We have seen that three of the *Sephiroth* constitute uniting links between three pairs of opposites, and by this means produce three triads, respectively denominated the Intellectual World, the Sensuous or Moral World, and the Material World, and that these three uniting *Sephiroth*, together with the one which unites the whole into a common unity, form what is called *the Middle Pillar* of the Kabbalistic tree. Now from the important position they thus occupy, these *Sephiroth* are synecdochically used to represent the worlds which by their uniting potency they respectively yield. Hence the *Sephira*, CROWN (כֶּתֶר), from which the *Sephiroth*, WISDOM (חֲכָמָה) and INTELLIGENCE (בִּינָה), emanated, and by which they are also united, thus yielding *the Intellectual World*, is by itself used to designate the Intellectual World (עוֹלָם הַמוֹשְׁבֶּעַ). Its own names, however, are not changed in this capacity, and it still continues to be designated by the several appellations mentioned in the description of the first *Sephira*. The sixth *Sephira*, called BEAUTY (תְּפָאֶרֶת), which unites *Sephiroth* IV (הוֹד, Love) and V (פֶּהַד, Justice), thus yielding *the Sensuous World*, is by itself used to denote the Sensuous World, and in this capacity is called *the Sacred King* (מֶלֶךְ קָדִישׁ), or simply *the King* (מֶלֶךְ); whilst the *Sephira* called KINGDOM (מַלְכוּת), which unites the whole *Sephiroth*, is here used to represent the Material World,

instead of the ninth *Sephira*, called FOUNDATION (יסוד), and is in this capacity denominated *the Queen* (מלכתא) or the *Matron* (מטרוניתא). Thus we obtain within the trinity of triads a higher trinity of units,—viz., *the Crown* (כתר), *Beauty* (תפארת), and *Kingdom* (מלכות),—which represents the potencies of all the *Sephiroth*.

## II. *The Creation or the Kabbalistic Cosmogony.*

Having arrived at the highest trinity which comprises all the *Sephiroth*, and which consists of *the Crown*, *the King*, and *the Queen*, we shall be able to enter into the cosmogony of the Kabbalah. Now, it is not *the En Soph* who created the world, but this trinity, as represented in the combination of the *Sephiroth*; or rather the creation has arisen from the conjunction of the emanations. The world was born from the union of the crowned King and Queen; or, according to the language of the Kabbalah, these opposite sexes of royalty, who emanated from the *En Soph*, produced the universe in their own image. Worlds, we are told, were indeed created before ever the King and Queen or the *Sephiroth* gave birth to the present state of things, but they could not continue, and necessarily perished, because the *En Soph* had not yet assumed this human form in its completeness, which not only implies a moral and intellectual nature, but, as conditions of development, procreation, and continuance, also comprises sexual opposites. This creation, which aborted and which has been succeeded by the present order of things, is indicated in Gen. xxxvi, 31—40. The kings of Edom, or the old kings as they are also denominated, who are here said to have reigned before the monarchs of Israel, and are mentioned as having died one after the other, are those primordial worlds which were successively convulsed and destroyed; whilst the sovereigns of Israel denote the King and Queen who emanated from the *En Soph*, and who have given birth to and perpetuate the present world. Thus we are told:—

"Before the Aged of the Aged, the Concealed of the Concealed, expanded into the form of King, the Crown of Crowns [*i.e.* the first *Sephira*], there was neither beginning nor end. He hewed and incised forms and figures into it [*i.e.* the crown] in the following manner:—He spread before him a cover, and carved therein kings [*i.e.* worlds], and marked out their limits and forms, but they could not preserve themselves. Therefore it is written, 'These are the kings that reigned in the land of Edom before there reigned any king over the children of Israel.' (Gen. xxxvi, 31.) This refers to the primordial kings and primordial Israel. All these were imperfect: he therefore removed them and let them vanish, till he finally descended himself to this cover and assumed a form." (*Idra Rabba, Sohar*, iii, 148 a.)

This important fact that worlds were created and destroyed prior to the present creation is again and again reiterated in *the Sohar*.<sup>9</sup> These worlds are compared with sparks which fly out from a red hot iron beaten by a hammer, and which are extinguished according to the distance they are removed from the burning mass. "There were old worlds," *the Sohar* tells us, "which perished as soon as they came into existence: were formless, and they were called sparks. Thus the smith when hammering the iron, lets the sparks fly in all directions. These sparks are the primordial worlds, which could not continue, because the Sacred Aged had not as yet assumed his form [of opposite sexes—the King and Queen], and the master was not yet at his work." (*Idra Suta, Sohar*, iii, 292 b.) But since nothing can be annihilated—"Nothing perisheth in this world, not even the breath which issues from the

<sup>9</sup> The notion, however, that worlds were created and destroyed prior to the present creation, was propounded in *the Midrash* long before the existence of the Kabbalah. Thus on the verse, "And God saw everything that he had made, and behold it was very good" (Gen. i, 31), R. Abahu submits א"ר אבדו מכתן שדקב"ה היה בורא עולמות ומחריבן ובורא עולמות ומחריבן עד שברא את אלו אמר דין מן זה לא ירחוק לא ירחוק from this we see that the Holy One, blessed be he, had successively created and destroyed sundry worlds before he created the present world, and when he created the present world he said, this pleases me, the previous ones did not please me. (*Bereshith Rabba*, section or Parsha ix.)

mouth, for this, like everything else, has its place and destination, and the Holy One, blessed be his name! turns it into his service;" (*Sohar*, ii, 110 b.)—these worlds could not be absolutely destroyed. Hence when the question is asked—"Why were these primordial worlds destroyed?" the reply is given—"Because the Man, represented by the ten *Sephiroth*, was not as yet. The human form contains every thing, and as it did not as yet exist, the worlds were destroyed." It is added, "Still when it is said that they perished, it is only meant thereby that they lacked the true form, till the human form came into being, in which all things are comprised, and which also contains all those forms. Hence, though the Scripture ascribes death (תמות) to the kings of Edom, it only denotes a sinking down from their dignity, *i.e.*, the worlds up to that time did not answer to the Divine idea, since they had not as yet the perfect form of which they were capable." (*Idra Rabba*, *Sohar*, iii, 135 b.)

It was therefore after the destruction of previous worlds, and after the *En Soph* or the Boundless assumed the Sephiric form, that the present world was created. "The Holy One, blessed be he, created and destroyed several worlds before the present one was made, and when this last work was nigh completion, all the things of this world, all the creatures of the universe, in whatever age they were to exist, before ever they entered into this world, were present before God in their true form. Thus are the words of Ecclesiastes to be understood 'What was, shall be, and what has been done, shall be done.'" (*Sohar*, iii, 61 b.) "The lower world is made after the pattern of the upper world; every thing which exists in the upper world is to be found as it were in a copy upon earth; still the whole is one." (*Ibid* ii, 20 a.)

This world, however, is not a creation *ex nihilo*, but is simply an immanent offspring and the image of the King and Queen, or, in other words, a farther expansion or evolution of

*the Sephiroth* which are the emanations of *the En Soph*. This is expressed in *the Sohar* in the following passage—"The indivisible point [the Absolute], who has no limit, and who cannot be comprehended because of his purity and brightness, expanded from without, and formed a brightness which served as a covering to the indivisible point, yet it too could not be viewed in consequence of its immeasurable light. It too expanded from without, and this expansion was its garment. Thus everything originated through a constant upheaving agitation, and thus finally the world originated." (*Sohar*, i, 20 a.) The universe therefore is an immanent emanation from *the Sephiroth*, and reveals and makes visible the Boundless and the Concealed of the Concealed. And though it exhibits the Deity in less splendour than its parents the *Sephiroth*, because it is further removed from the primordial source of light, yet, as it is God manifested, all the multifarious forms in the world point out the unity which they represent; and nothing in it can be destroyed, but everything must return to the source whence it emanated. Hence it is said that "all things of which this world consists, spirit as well as body, will return to their principal, and the root from which they proceeded." (*Sohar*, ii, 218 b.) "He is the beginning and end of all the degrees in the creation. All these degrees are stamped with his seal, and he cannot be otherwise described than by the unity. He is one, notwithstanding the innumerable forms which are in him." (*Ibid* i, 21 a.)

Now these *Sephiroth*, or *the World of Emanations* (עולם אצילות), or the *Atzilatic World*, gave birth to three worlds in the following order:—From the conjunction of the KING and QUEEN (i.e., the ten *Sephiroth*) proceeded—I. *The World of Creation*, or *the Briatic World* (עולם הבריאה), also called *The Throne* (כרסיה), which is the abode of pure spirits, and which, like its parents, consists of ten *Sephiroth*, or *Emanations*. *The Briatic World*, again, gave rise to,

## II. *The World of Formation*, or the *Jetziratic World*

(עולם הציורה), which is the habitation of the angels, and also consists of ten *Sephiroth*; whilst the *Jetziratic World*, again,

sent forth, III. *The World of Action*, or the *Assiatic World* (עולם העשיה), also called *the World of Keliphoth* (עולם

הקליפות), which contains *the Spheres* (גלגלים) and matter, and is the residence of the Prince of Darkness and his legions.

Or, as the *Sohar* describes it—"After the *Sephiroth*, and for their use, God made *the Throne* (*i.e.*, the World of Creation), with four legs and six steps, thus making ten (*i.e.*, the decade of *Sephiroth* which each world has). . . . For this Throne

and its service he formed the ten Angelic hosts (*i.e.*, the World of Formation), *Malachim*, *Arelim*, *Chajoth*, *Ophanim*, *Chashmalim*, *Elim*, *Elohim*, *Benei Elohim*, *Ishim*, and *Seraphim*

מלאכים אראלים חיות אופנים חשמלים אלים (אלהים בני אלהים אישים שרפים), and for their service, again, he made Samaël and his legions (*i.e.*, the World of

Action), who are, as it were, the clouds upon which the angels ride in their descent on the earth, and serve, as it were, for their horses. Hence it is written—"Behold the Lord rideth upon a swift cloud, and shall come into Egypt." (Isa. xix, 1.)

(*Sohar* ii, 43 a.) There are, therefore, *four* worlds, each of which has a separate Sefiric system, consisting of a decade of emanations. I. *The Atzilatic World*, called alternately

*the World of Emanations* (עולם אצילות), *the Image* (דיוקנא = εἰκὼν with ד prefixed), and *the Heavenly Man* (אדם

עלאה), which, by virtue of its being a direct emanation from God and most intimately allied with the Deity, is perfect and immutable. II. *The Briatic World*, called *the*

*World of Creation* (עולם הבריאה) and *the Throne* (כורסיא), which is the immediate emanation of the former, and whose *ten Sephiroth*, being further removed from the *En Soph*, are

of a more limited and circumscribed potency, though the substances they comprise are of the purest nature and without

any admixture of matter. III. *The Jetziratic World*, called *the World of Formation* (עולם היצירה) and *the World of Angels* (מלאכיא), which proceeded from the former world, and whose *ten Sephiroth*, though of a still less refined substance than the former, because further removed from the primordial source, are still without matter. It is in this angelic world where those intelligent and incorporeal beings reside, who are wrapped in a luminous garment, and who assume a sensuous form when they appear to man. And IV. *The Assiatic World*, called *the World of Action* (עולם העשיה) and *the World of Matter* (עולם הקליפות) which emanated from the preceding world, the *ten Sephiroth* of which are made up of the grosser elements of all the former three worlds, and which has sunk down in consequence of its materiality and heaviness. Its substances consist of matter limited by space and perceptible to the senses in a multiplicity of forms. It is subject to constant changes, generations, and corruptions, and is the abode of the Evil Spirit.

Before leaving this doctrine about the creation and the relationship of the Supreme Being to the universe, we must reiterate two things. I. Though the trinity of *the Sephiroth* gave birth to the universe, or, in other words, is an evolution of the emanations, and is thus a further expansion of the Deity itself, it must not be supposed that the Kabbalists believe in a Trinity in our sense of the word. Their view on this subject will best be understood from the following remark in *the Sohar*—"Whoso wishes to have an insight into the sacred unity, let him consider a flame rising from a burning coal or a burning lamp. He will see first a twofold light, a bright white and a black or blue light; the white light is *above*, and ascends in a direct light, whilst the blue or dark light is *below*, and seems as the chair of the former, yet both are so intimately connected together that they constitute only one flame. The seat, however, formed by the

blue or dark light, is again connected with the burning matter which is *under it* again. The white light never changes its colour, it always remains white; but various shades are observed in the lower light, whilst the lowest light, moreover, takes two directions—*above* it is connected with the white light, and *below* with the burning matter. Now this is constantly consuming itself, and perpetually ascends to the upper light, and thus everything merges into a single unity (וְכֹלֵא אֶתְקַשֵּׁר בְּיָחַד אֶחָד *Sohar*, i, 51 a).<sup>10</sup>

And II. The creation, or the universe, is simply the garment of God woven from the Deity's own substance; or, as Spinoza expresses it, God is the immanent basis of the universe. For although, to reveal himself to us, the Concealed of all the Concealed sent forth the ten emanations called the *Form of God*, *Form of the Heavenly Man*, yet since even this luminous form was too dazzling for our vision, it had to assume another form, or had to put on another garment which consists of the universe. The universe, therefore, or the visible world, is a further expansion of the Divine Substance, and is called in the Kabbalah "*the Garment of God*." Thus we are told, "when the Concealed of all the Concealed wanted to reveal himself, he first made a point [*i.e.* the first *Sephira*], shaped it into a sacred form [*i.e.* the totality of the *Sephiroth*], and covered it with a rich and splendid garment that is the world." (*Sohar*, i, 2 a).

### III. *The Creation of Angels and Men.*

The different worlds which successively emanated from the *En Soph* and from each other, and which sustain the relationship to the Deity of first, second, third, and fourth generations, are, with the exception of the first (*i.e.*, the World of Emanations), inhabited by spiritual beings of various grades.

<sup>10</sup> The question, however, about the doctrine of the Trinity in other passages of the *Sohar* will be discussed more amply in the sequel, where we shall point out the relation of the Kabbalah to Christianity.

"God animated every part of the firmament with a separate spirit, and forthwith all the heavenly hosts were before him. This is meant by the Psalmist, when he says (Ps. xxxiii, 6), 'By the breath of his mouth were made all their hosts.'" (*Sohar*, iii, 68 a.) These angels consist of two kinds—good and bad; they have their respective princes, and occupy the three habitable worlds in the following order. As has already been remarked, the first world, or the Archetypal Man, in whose image everything is formed, is occupied by no one else. The angel METATRON (מטטרון) occupies the second or *the Briatic World* (עולם בריאה), which is the first habitable world; he alone constitutes the world of pure spirits. He is the garment of שדי i.e., the visible manifestation of the Deity; his name is numerically equivalent to that of the Lord. (*Sohar*, iii, 231 a.) He governs the visible world, preserves the unity, harmony, and the revolutions of all the spheres, planets and heavenly bodies, and is the Captain of the myriads of the angelic hosts<sup>11</sup> who people the second habitable or *the Jetziratic*

<sup>11</sup> The Kabbalistic description of *Metatron* is taken from the Jewish angelology of a much older date than this theosophy. Thus Ben Asai and Ben Soma already regard the divine voice, the *λόγος* (קול אלהים) as Metatron. (*Beresh. Rab.*, Parasha v.) He is called the *Great Teacher, the Teacher of Teachers* (מסור רבא), and it is for this reason that Enoch, who walked in close communion with God, and taught mankind by his holy example, is said by the Chaldee paraphrase of Jonathan b. Uzziel, to 'have received the name *Metatron, the Great Teacher*' after he was transplanted. (Gen. v, 24.) Metatron, moreover, is the Presence Angel (שר השנים), the Angel of the Lord that was sent to go before Israel (Exod. xxiii, 21); he is the visible manifestation of the Deity, for in him is the name of the Lord, i.e., his name and that of the Deity are identical, inasmuch as they are of the same numerical value (viz.:—שדי—מטטרון, are the same according to the exegetical rule called *Gematria*,  $\text{ש} 10 + \text{ד} 4 + \text{י} 300 = 314$ ;  $\text{מ} 50 + \text{ט} 16 + \text{ר} 200 + \text{ט} 9 + \text{נ} 40 = 314$ . See Rashi on Exod. xxiii, 21, *Sanhedrim* 88 b). So exalted is Metatron's position in the ancient Jewish angelology, that we are told that when Elisha b. Abaja, also called Acher, saw this angel who occupies the first position after the Deity, he exclaimed, 'Peradventure, but far be it, there are two Supreme Powers' (שני עולמות שמי רשומות הן) *Talmud, Chagiga*, 15 a). The etymology of מטטרון is greatly disputed; but there is no doubt that it is to be derived from METATOR, messenger, outrider, way maker, as has been shown by Elias Levita, and is maintained by Cassel (*Ersch und Gruber's Encyclopädie*, section ii, vol. xxvii, s. v.; *שבת*, p. 40, note 84). Sachs (*Beiträge zur Sprach- und Alterthumsforschung*, vol. i, Berlin 1852, p. 108) rightly remarks that this etymology is fixed by the passage from *Siphra*, quoted in *Kaphter-Va-Pherach*, c. x, p. 84 b ארץ ישראל כל ארץ ישראל כל ארץ ישראל the finger of God was the messenger or guide to Moses, and showed him all the land of Israel.

*World* (עולם יצירה), and who are divided into ten ranks, answering to the *ten Sephiroth*. Each of these angels is set over a different part of the universe. One has the control of one sphere, another of another heavenly body; one angel has charge of the sun, another of the moon, another of the earth, another of the sea, another of the fire, another of the wind, another of the light, another of the seasons, &c. &c.; and these angels derive their names from the heavenly bodies they respectively guard. Hence one is called Venus (ננה), one Mars (מאדים), one the substance of Heaven (עצם השמים), one the angel of light (אוריאל), and another the angel of fire (נוראל.) (Comp. *Sohar* i, 42, &c.) The demons, constituting the second class of angels, which are the grossest and most deficient of all forms, and are *the shells* (קליפות) of being, inhabit the third habitable or *Assiatic World* (עולם עשיה). They, too, form ten degrees, answering to the decade of *Sephiroth*, in which darkness and impurity increase with the descent of each degree. Thus the two first degrees are nothing more than the absence of all visible form and organisation, which the Mosaic cosmology describes in the words *תהו ובהו* before the hexahemeron, and which the Septuagint renders by *ἀόρατος καὶ ἀκατασκεύαστος*. The third degree is the abode of the darkness which the book of Genesis describes as having in the beginning covered the face of the earth. Whereupon follow seven infernal halls (שבע היכלות) = HELLS, occupied by the demons, which are the incarnation of all human vices, and which torture those poor deluded beings who suffered themselves to be led astray in this world. These seven infernal halls are subdivided into endless compartments, so as to

The termination ך has been appended to מטטר to obtain the same numerical value, as שדי. The derivation of it from *μετὰ θρόνον*, because this angel is immediately under the divine throne (מורשיא), which is maintained by Frank (Kabbala, p. 43), Graetz (*Gnosticismus*, p. 44) and others, has been shown by Frankel (*Zeitschrift*, 1846. vol. iii, p. 118), and Cassel (*Ersch und Gruber's Encyclop.* section ii, vol. xxvii, p. 41), to be both contrary to the form of the word and to the description of Metatron.

afford a separate chamber of torture for every species of sin. The prince of this region of darkness, who is called Satan in the Bible, is denominated by the Kabbalah, *Samaël* (סמאל) = *angel of poison* or *of death*. He is the same evil spirit, Satan, the serpent, who seduced Eve.<sup>12</sup> He has a wife, called the Harlot or the Woman of Whoredom (אשת זנונים), but they are both generally represented as united in the one name of *the Beast* (דיוא). Comp. *Sohar*, ii, 255—259, with i, 35 b.)

The whole universe, however, was incomplete, and did not receive its finishing stroke till man was formed, who is the acme of the creation, and the microcosm uniting in himself the totality of beings. "The HEAVENLY ADAM (i.e., the ten *Sephiroth*), who emanated from the highest primordial obscurity (i.e., the *En Soph*), created the EARTHLY ADAM." (*Sohar*, ii, 70 b.) "Man is both the import and the highest degree of creation, for which reason he was formed on the sixth day. As soon as man was created, everything was complete, including the upper and nether worlds, for everything is comprised in man. He unites in himself all forms." (*Sohar*, iii, 48 a.)<sup>13</sup> Man was created with faculties and features far transcending those of the angels. The bodies of the protoplasts were not of that gross matter which constitutes our bodies. Adam and Eve, before the fall, were wrapped in that luminous ethereal substance in which the celestial spirits are clad, and which is neither subject to want nor to sensual desires. They were envied by the angels of the highest rank. The fall, however, changed it all, as we are told in the following passage—"When Adam

<sup>12</sup> The view that the serpent which seduced the protoplasts is identical with Satan is not peculiar to the Kabbalah. It is stated in the *Talmud* in almost the same words *הוא יצר הרע הוא השטן הוא מלאך המות כמחניחא חנא יורד ומטע עליה ומוציא ומוציא הוה יורד ומטעין יורד וממיר* the *evil spirit, Satan, and the angel of death, are the same. It is propounded in the Boraita that he descends and seduces; he then ascends and accuses, and then comes down again and kills.* Baba Bathra, 16 a.

<sup>13</sup> כיון דנברא אדם איתחנן בלא וכל מה דלעילא וחתא וכלא איתכליל באדם . . . איהו שלימותא דכלא וחדא דלק ג' דין מ"ח א'

dwelled in the garden of Eden, he was dressed in the celestial garment, which is a garment of heavenly light. But when he was expelled from the garden of Eden, and became subject to the wants of this world, what is written? 'The Lord God made coats of skins unto Adam and to his wife, and clothed them' (Gen. iii, 21); for prior to this they had garments of light—light of that light which was used in the garden of Eden." (*Sohar*, ii, 229 b.) The garments of skin, therefore, mean our present body, which was given to our first parents in order to adapt them to the changes which the fall introduced.

< But even in the present form, the righteous are above the angels,<sup>14</sup> and every man is still the microcosm, and every member of his body corresponds to a constituent part of the visible universe. "What is man? Is he simply skin, flesh, bones, and veins? No! That which constitutes the real man is the soul, and those things which are called the skin, the flesh, the bones, and the veins, all these are merely a garment, they are simply the clothes of the man, but not the man himself. When man departs, he puts off these garments wherewith the son of man is clothed. Yet are all these bones and sinews formed in the secret of the highest wisdom, after the heavenly image. The skin represents the firmament, which extends everywhere, and covers everything like a garment—as it is written, 'Who stretchest out the heavens like a curtain.' (Ps. clv, 2) . . . The flesh represents the deteriorated part of the world; . . . the bones and the veins represent the heavenly chariot, the inner powers, the servants of God. . . . But these are the

14 That the righteous are greater than the angels is already propounded in the Talmud (בריתא דרבי יוחנן בן זכאי ורבי חנינא בן חפאי *Sanhedrim* 98 a); and it is asserted that no one angel can do two things (אין מלאך אחד עושה שתי שליחות *Beresith Rabbah*, section 1), for which reason three angels had to be sent, one to announce to Sarai the birth of Isaac, the other to destroy Sodom and Gomorrah, and the third to save Lot and his family; whilst a man can perform several duties. The superiority of man over angels is also asserted in the New Testament. (1 Cor. vi, 3.)

outer garments, for in the inward part is the deep mystery of the heavenly man. Everything here below, as above, is mysterious. Therefore it is written—'God created man in his own image, in the image of God created he him' (Gen. i, 27); repeating the word God twice, one for the man and the other for the woman. The mystery of the earthly man is after the mystery of the Heavenly Man. And just as we see in the firmament above, covering all things, different signs which are formed of the stars and planets, and which contain secret things and profound mysteries, studied by those who are wise and expert in these signs; so there are in the skin, which is the cover of the body of the son of man, and which is like the sky that covers all things, signs and features which are the stars and planets of the skin, indicating secret things and profound mysteries, whereby the wise are attracted, who understand to read the mysteries in the human face." (*Sohar*, ii, 76 a.) He is still the presence of God upon earth (שכינתא), and the very form of the body depicts the Tetragrammaton, the most sacred name Jehovah (יהוה). Thus the head is the form of the י, the arms and the shoulders are like the ה, the breast represents the form of the ו, whilst the two legs with the back represent the form of the second ה. (*Sohar*, ii, 42 a.)<sup>15</sup>

The souls of all these epitomes of the universe are pre-existent in the World of Emanations,<sup>16</sup> and are without exception

15 The Karmarthi, who interpreted the precepts of Islamism allegorically, also maintained that the human body represents the letters in the name of God. When standing the human body represents an *Elif*, when kneeling a *Lam*, and when prostrated on the ground a *He*, so that the body is like a book in which may be read the name ALLAH. De Sacy, *Introduction à l'Exposé de la Religion des Druzes*, pp. 86, 87. Comp. Frank, *Die Kabbala*, p. 32.

16 The pre-existence of the human souls in the celestial regions was believed by the Jews before the Kabbalah came into vogue. We find this doctrine in the Book of Wisdom (viii, 20); in Josephus, where we are told that the Essenes believed 'that souls were immortal, and that they descended from the pure air, συμπλέκεσθαι ὥσπερ εἰρκταῖς τοῖς σώμασι, to be chained to bodies' (*de Bell. Jud.* ii, 12); by Philo, who says 'the air was full of them, and that those which were nearest the earth κατὰσιν ἐκδεθσομέναι σώμασι θνητοῖς, descending to be tied to mortal bodies, παλινδρομοῦσι αὐθις, return back to bodies, being

destined to inhabit human bodies, and pursue their course upon earth for a certain number of years. Hence we are told that, "When the Holy One, blessed be his name, wished to create the world, the universe was before him in idea. He then formed all the souls which are destined for the whole human race. All were minutely before him in the same form which they were to assume in the human body. He looked at each one of them; and there were some among them which would corrupt their way upon the earth." (*Sohar*, i, 96 b). Like the *Sephiroth* from which it emanates, every soul has ten potencies, which are subdivided into a trinity of triads, and are respectively represented by (I) *The Spirit*, (נשמה), which is the highest degree of being, and which both corresponds to and is operated upon by THE CROWN (כתר), representing the highest triad in the *Sephiroth*, called the Intellectual World; (II) *The Soul* (רוח), which is the seat of good and evil, as well as the moral qualities, and which both corresponds to and is operated upon by BEAUTY (תפארת), representing the second triad in the *Sephiroth*, called the Moral World; and (III) *The Cruder Spirit* (נפש), which is immediately connected with the body, is the direct cause of its lower functions, instincts, and animal life, and which both corresponds to and is operated upon by FOUNDATION (יסוד), representing the third triad in the *Sephiroth*, called the Material World.

In its original state each soul is androgynous, and is separated into male and female when it descends on earth to be borne in a human body. We have seen that the souls of

desirous to live in them.' (*De Gignat*. p. 222, C.; *De Somniis*, p. 455, D. Comp. Arnald on the Book of Wisdom, viii, 20, and Whitby on John ix, 2., where these quotations and others are given); and in the Talmud where it is declared that the human souls which are to be born (נשמות שנתקן להורגא), have their abode in the seventh heaven (*Chagiga*, 12 b); that they leave gradually the storehouse of souls to people this earth (נשמות שנתקן) (*Jebamoth*, 62; *Aboda Sara*, 5; *Nidda*, 13); and that the Holy One, blessed be he, took counsel with them when he was about to create the world (נשמות של צדיקין נמלך בנשמות) (*Bereshith Rabba*, section viii).

the righteous, in the world of spirits, are superior in dignity to the heavenly powers and the ministering angels. It might, therefore, be asked why do these souls leave such an abode of bliss, and come into this vale of tears to dwell in tabernacles of clay? The only reply to be given is that these happy souls have no choice in the matter. Indeed we are told that the soul, before assuming a human body, addresses God—'Lord of the Universe! I am happy in this world, and do not wish to go into another world, where I shall be a bond-maid, and be exposed to all kinds of pollutions.' (*Sohar*, ii, 96.)<sup>17</sup> And can you wonder at this pitiful ejaculation? Should your philanthropic feelings and your convictions that our heavenly Father ordains all things for the good of his children, impel you to ask that an explanation of this mystery might graciously be vouchsafed to you in order to temper your compassion and calm your faith, then take this parable. "A son was born to a King; he sends him to the country, there to be nursed and brought up till he is grown up, and instructed in the ceremonies and usages of the royal palace. When the King hears that the education of his son is finished, what does his fatherly love impel him to do? For his son's sake he sends for the Queen his mother, conducts him into the palace and makes merry with him all day. Thus the Holy One, blessed be he, has a son with the Queen: this is the heavenly and sacred soul. He sends him into the country, that is into this world, therein to grow up and to learn the customs of the court. When the King hears that this his son has grown up in the country, and that it is time to bring him into the palace, what does his love for his son impel him to do? He sends, for his sake,

<sup>17</sup> The notion about the reluctance of the soul to enter into this world is also not peculiar to the Kabbalah. The most ancient tract of the Mishna thus speaks of the soul: "Against thy will thou becomest an embryo, and against thy will thou art born" (על כרחק מזה נוצר ועל כרחק מזה נולד) (*Aboth*, iv, 29); on which Bartenora, in his commentary, remarks: "The soul does not wish to quit the pure abode of the curtain which encloses the Holy of Holies."

for the Queen and conducts him to the palace." (*Sohar*, i, 245 b.)

As has already been remarked, the human soul, before it descends into the world, is androgynous, or in other words, consists of two component parts, each of which comprises all the elements of our spiritual nature. Thus the *Sohar* tells us—"Each soul and spirit, prior to its entering into this world, consists of a male and female united into one being. When it descends on this earth the two parts separate and animate two different bodies. At the time of marriage, the Holy One, blessed be he, who knows all souls and spirits, unites them again as they were before, and they again constitute one body and one soul, forming as it were the right and left of one individual; therefore 'There is nothing new under the sun.' (Ecl. i, 9.) . . . This union, however, is influenced by the deeds of the man and by the ways in which he walks. If the man is pure and his conduct is pleasing in the sight of God, he is united with that female part of his soul which was his component part prior to his birth." (*Sohar*, i, 91 b.)<sup>18</sup> The soul carries her knowledge with her to the earth, so that "every thing which she learns here below she knew already, before she entered into this world." (*Ibid.*, iii, 61 b.)

Since the form of the body as well as the soul, is made after the image of the Heavenly Man, a figure of the forthcoming body which is to clothe the newly descending soul, is sent down from the celestial regions, to hover over the couch of the husband and wife when they copulate, in order that the conception may be formed according to this model. "At

18 כל אינון רחוק ונשמחין כליו כליל דבר ונוקבא דמתחברין כדא ואחמסין ביא דהווא מסמא שליוא דאחמסין על עזאיהן [עבוריהן] דבני נשא וליה סמיה ובשעתא דנחתין ואחמסין בדיו מחפשיין ולומדין דא אקדים מן דא ואחיה לזו בבני נשא וכד מסמא [מחא] עין דוונא דלחין קב"ה רידע אינון רחוק ונשמחין מחברין לון כדבקרמיתא ומכרוא עליהו וכד אחמסין אתעבידו דוד גוסא דוד נשמחא ימיא ושמאלא כקא דזוי ובגין כך אין כל חדש נחת השמש ואי תימא דא תניין לית וזונא אלא לשום עובדי ואורחוי דבר נש הכי הוא דאי • דאי וכי ועובדי אתבשרין וכי לזונא דליה לאתחברא ביה כמה דנשי • ודוד דלק א דף צא ב

connubial intercourse on earth, the Holy One, blessed be he, sends a human form which bears the impress of the divine stamp. This form is present at intercourse, and if we were permitted to see it we should perceive over our heads an image resembling a human face; and it is in this image that we are formed. As long as this image is not sent by God and does not descend and hover over our heads, there can be no conception, for it is written—‘And God created man in his own image.’ (Gen. i, 27.) This image receives us when we enter the world, it develops itself with us when we grow, and accompanies us when we depart this life; as it is written—‘Surely, man walked in an image’ (Ps. xxxvii, 5): and this image is from heaven. When the souls are to leave their heavenly abode, each soul separately appears before the Holy King, dressed in a sublime form, with the features in which it is to appear in this world. It is from this sublime form that the image proceeds. It is the third after the soul, and precedes it on the earth; it is present at the conception, and there is no conception in the world where this image is not present.” (*Sohar*, iii, 104 a b.)<sup>19</sup>

All human countenances are divisible into the four primordial types of faces, which appeared at the mysterious chariot throne in the vision of the prophet Ezekiel, viz., the face of man, of the lion, the ox and the eagle. Our faces resemble these more or less according to the rank which our souls occupy in the intellectual or moral dominion. “And physiognomy does not consist in the external lineaments, but in the features which are mysteriously drawn in us. The features

19 בספרא דשלמה מלכא אשכחנא דבשעתא דוונגא אשתכח לתתא שולד קב"ה חד דיוקנא כפרצותא ד"נ רשימא חקיקא בצולמא וקיימא על ההוא וונגא ואלמי' איתחייב רשו לעינא למסוין חמי ב"נ על רישיה חד צולמא רשימא כפרצותא דבר נש ובההוא צולמא אתברי' ב"נ ועד וקיימא [ס"א ועד לא קיימא] והוא צולמא דשרר ליה מאריה על רישיה ושתכח חמן לא אתברי' ב"נ הה"ד ויברא אלדים את האדם בצלמו' והוא צלם אדמון לקבליה עד דנפיק לעלמא כד נפק בההוא צלם אתריב בההוא צלם אויל הה"ד אך בצלם יתהליך איש דהאי צלם איהו מלעילא בשעתא דאינון רחין נפקין מאתריהו כל רוחא ורוחא אתחקן קמי מלכא קדישא בחקוני יקר כפרצותא דקא' בהאי עלמא ומדההוא דיוקנא חקונא יקר נפיק דאי צלם' דאי תלימאחא לרוחא ואקרימח בהאי עלמא בשעתא דוונגא אשתכח וליה לך וונגא בעלמא ולא אשתכח בגוייהו' וחדו חלק ג דף ק א ב,

in the face change according to the form which is peculiar to the inward face of the spirit. It is the spirit which produces all those physiognomical peculiarities known to the wise; and it is only through the spirit that the features have any meaning. All those spirits and souls which proceed from Eden (*i.e.*, the highest wisdom) have a peculiar form, which is reflected in the face." (*Sohar*, ii, 73 b.) The face thus lighted up by the peculiar spirit inhabiting the body, is the mirror of the soul; and the formation of the head indicates the character and temper of the man. An arched forehead is a sign of a cheerful and profound spirit, as well as of a distinguished intellect; a broad but flat forehead indicates foolishness and silliness; whilst a forehead which is flat, compressed on the sides and spiral, betokens narrowness of mind and vanity. (*Comp. Sohar*, ii, 71 b, 75 a.)

As a necessary condition of free existence and of moral being, the souls are endowed by the Deity, from the very beginning, with the power of adhering in close proximity to the primordial source of infinite light from which they emanated, and of alienating themselves from that source and pursuing an independent and opposite course. Hence, Simon ben Jochai said, "If the Holy One, blessed be he, had not put within us both the good and the evil desire, which are denominated light and darkness, the created man would have neither virtue nor vice. For this reason it is written—'Behold, I have set before thee this day life and good, and death and evil.' (Deut. xxx, 15.) To this the disciples replied, Wherefore is all this? Would it not be better if reward and punishment had not existed at all, since in that case man would have been incapable of sinning and of doing evil. He rejoined, It was meet and right that he should be created as he was created, because the Law was created for him, wherein are written punishments for the

wicked and rewards for the righteous ; and there would not have been any reward for the righteous and punishment for the wicked but for created man." (*Sohar* i, 23 a.) So complete is their independence, that souls, even in their pre-existent state, can and do choose which way they intend to pursue. " All souls which are not guiltless in this world, have already alienated themselves in heaven from the Holy One, blessed be he ; they have thrown themselves into an abyss at their very existence, and have anticipated the time when they are to descend on earth. . . . Thus were the souls before they came into this world." (*Ibid.*, iii, 61 b.)

#### IV. *The Destiny of Man and the Universe.*

As *the En Soph* constituted man the microcosm, and as the Deity is reflected in this epitome of the universe more than in any component part of the creation, all things visible and invisible are designed to aid him in passing through his probationary state here below, in gathering that experience for which his soul has been sent down, and in returning in a pure state to that source of light from which his soul emanated. This destiny of man—*i.e.*, the reunion with the Deity from which he emanated—is the constant desire both of God and man, and is an essential principle of the soul, underlying its very essence. Discarding that blind power from our nature, which governs our animal life, which never quits this earth, and which therefore plays no part in our spiritual being, the soul possesses two kinds of powers and two sorts of feelings. It has the faculty for that extraordinary prophetic knowledge, which was vouchsafed to Moses in an exceptional manner, called *the Luminous Mirror* (אִסְפָּקְלָרִיא נְהוּרָא = *specularia*), and the ordinary knowledge termed *the Non-Luminous Mirror* (אִסְפָּקְלָרִיא דְּלֵא נְהוּרָא), respectively represented in the earthly Paradise by the Tree of Life and the Tree of Knowledge of good and evil ; and it possesses

✓ the higher feeling of love and the lower feeling of fear.<sup>20</sup> Now the full fruition of that higher knowledge and of that loftier feeling of love can only be reaped when the soul returns to the Infinite Source of Light, and is wrapped in that luminous garment which the protoplasts forfeited through the fall. Thus we are told, "Come and see when the soul reaches that place which is called the Treasury of Life (צִוְרוֹר חַיִּים), she enjoys a bright and luminous mirror (אֶסְפֶּקְלִיאָה דְּנִהָרָא), which receives its light from the highest heaven. The soul could not bear this light but for the luminous mantle which she puts on. For just as the soul, when sent to this earth, puts on an earthly garment to preserve herself here, so she receives above a shining garment, in order to be able to look without injury into the mirror whose light proceeds from the Lord of Light. Moses too could not approach to look into that higher light which he saw, without putting on such an ethereal garment; as it is written—'And Moses went into the midst of the cloud' (Exod. xxiv, 18), which is to be translated *by means* of the cloud wherewith he wrapped himself as if dressed in a garment. At that time Moses almost discarded the whole of his earthly nature; as it is written,—'And Moses was on the mountain forty days and forty nights' (*ibid.*); and he thus approached that dark cloud where God is enthroned. In this wise the departed spirits of the righteous dress themselves in the upper regions in luminous garments, to be able to endure that light which streams from the Lord of Light." (*Sohar*, i, 65 b, 66 a.)

The two feelings of love and fear are designed to aid the soul in achieving her high destiny, when she shall no more

<sup>20</sup> The two kinds of faculties, as well as the two sorts of feelings, are also mentioned in the Talmud. Thus it is said—"All the prophets looked into the Non-Luminous Mirror, whilst our teacher, Moses, looked into the Luminous Mirror." (כל הנביאים נסתכלו במספלקריא שאינה מאירה משא רבינו נסתכל במספלקריא) (*Jebamoth*, 49 b). And again—"Also the divine service which is engendered by fear and not by love, has its merit." (*Jerusalem Berachoth*, 44; *Babylon Sota*, 22 a.)

look through the dark glass, but see face to face in the presence of the Luminous Mirror, by permeating all acts of obedience and divine worship. And though perfect love, which is serving God purely out of love, like that higher knowledge, is to be man's destiny in heaven, yet the soul may attain some of it on earth, and endeavour to serve God out of love and not from fear, as thereby she will have an antepast on earth of its union with the Deity, which is to be so rapturous and indissoluble in heaven. "Yet is the service which arises from fear not to be depreciated, for fear leads to love. It is true that he who obeys God out of love has attained to the highest degree, and already belongs to the saints of the world to come, but it must not be supposed that to worship God out of fear is no worship. Such a service has also its merit, though in this case the union of the soul with the Deity is slight. There is only one degree which is higher than fear: it is love. In love is the mystery of the divine unity. It is love which unites the higher and lower degrees together; it elevates everything to that position where everything must be one. This is also the mystery of the words, 'Hear O Israel, the Lord our God is one God.'" (*Sehar*, ii, 216 a.)

Hence it is that these two principles play so important a part in the devotions and contemplations of the Kabbalists. Love is made to correspond to MERCY, the fourth *Sephira*, whilst Fear is made to answer to RIGOUR, the fifth *Sephira*; and it is asserted that when these two principles are thoroughly combined by the righteous in their divine worship and acts of obedience, the name Jehovah, which comprises these two principles, and which is now rent in twain by the preponderance of sin and disobedience, will be re-united. Then, and then only, will all the souls return to the bosom of the Father of our spirits; then will the restitution of all things take place, and the earth shall be covered with the knowledge of God even as the waters cover the sea. This is the reason why the

Kabbalists utter the following prayer prior to the performance of any of the commandments : “ For the re-union of the Holy One, blessed be his name, and his Shechinah, I do this in love and fear, in fear and love, for the union of the name יה with יה into a perfect harmony ! I pronounce this in the name of all Israel ! ” <sup>21</sup> In order to represent this union to the senses the words *Fear* ירא and *Love* אהבה, are divided, and so placed above each other that they may be read either across or down, as follows :—

יה	אה
אה	בה

When thus fulfilling the commandments the pious not only enjoy a prelibation of that sublime light which shines in heaven, and which will serve them as a garment when they enter into the other world and appear before the Holy One (*Sohar*, ii, 299 *b*), but become on earth already the habitation of the *Sephiroth*, and each saint has that *Sephira* incarnate in him which corresponds to the virtue he most cultivates, or to the feature most predominant in his character. Among the patriarchs, therefore, who were the most exalted in piety, we find that LOVE, the fourth *Sephira*, was incarnate in Abraham ; RIGOUR, the fifth *Sephira*, in Isaac ; MILDNESS, the sixth *Sephira*, in Jacob ; FIRMNESS, the seventh *Sephira*, in Moses ; SPLENDOUR, the eighth *Sephira*, in Aaron ; FOUNDATION, the ninth *Sephira*, in Joseph ; and KINGDOM, the tenth *Sephira*, was incarnate in David. Hence all the righteous who constitute the emanations, of the *ten Sephiroth* are divided into three classes corresponding to the three principles or Pillars exhibited in the Kabbalistic Tree, viz. :—I. THE PILLAR OF MERCY (חסד), represented by the

21 לשם יחוד קב"ה ושכינתה ברחימו ורחילו ובודילו ורחימו ורחימו שם י"ה בו"ה ביחודא שלים  
בשם כל ישראל

Patriarch Abraham (comp. **חסד לאברהם** Micah, vii, 20 ;)  
 II. THE PILLAR OF JUSTICE (**פחד**), represented by Isaac  
 (comp. **פחד יצחק** Gen. xxxi, 42) ; and III. THE MIDDLE  
 PILLAR, represented by Jacob (comp. **אמת ליעקב** Micah vii, 20),  
 which is the connecting or uniting principle. (*Sohar*, i, 146 a ;  
 148 b.) It is for this reason that the patriarchs are denomi-  
 nated the Chariot-throne of the Lord.

Following the paths of righteousness, the saints on earth  
 enjoy the protection of heaven in an especial manner, by  
 virtue of the divine wisdom inherent in them, for they are  
 able to decipher the signs which God has put in the firmament  
 to shield them from accidents. "In heaven above, that sur-  
 rounds the universe, are signs in which the deepest mysteries  
 are concealed. These signs are constellations and stars, which  
 are studied and deciphered by the wise." (*Sohar*, ii, 76 a.)  
 Hence the admonition—"He who has to start on a journey  
 very early, should rise at daybreak, look carefully towards the  
 east, and he will perceive certain signs resembling letters which  
 pierce through the sky and appear above the horizon. These  
 shining forms are those of the letters wherewith God created  
 heaven and earth. Now, if man knows the secret meaning  
 of the sacred name, consisting of forty-two letters, and medi-  
 tates on it with becoming devotion and enthusiasm, he will  
 perceive six *Jods* (**יוד**) in the pure sky, three to the right  
 and three to the left, as well as three *Vavs* (**ו"ו**), which hover  
 about in the heavenly arch. These are the letters of the  
 priestly benediction (**ברכת כהנים**). . . . In the bright  
 morning he will perceive a pillar towards the west, hanging  
 perpendicularly over the earthly paradise, and another pillar  
 hanging over the centre of paradise. This luminous pillar  
 has the three colours of a purple web : three birds stand on  
 it, singing in the following manner. The first sings, 'Halle-  
 lujah ! Praise, O ye servants of the Lord, praise the name of  
 the Lord' (Ps. cxiii, 1) ; the second, 'Blessed be the name

of the Lord from this time forth and for evermore' (*ibid.* v. 2); and the third, 'From the rising of the sun unto the going down of the same, the Lord's name is to be praised' (*ibid.* v. 3). This is the time when the pious traveller is to offer up his morning prayer, in order that he may secure heaven's blessings and the sublime and divine mercy as his sure guide." (*Sohar*, ii, 130 b.)

Now since it is an absolute condition of the soul to return to the Infinite Source from which it emanated, after developing all those perfections, the germs of which are eternally implanted in it; and since some souls do not at once develop these fruits of righteousness, which precludes their immediate reunion with their Primordial Source, another term of life is vouchsafed to them, so that they may be able to cultivate those virtues which they stifled in their former bodily life, and without which it is impossible for them to return to their heavenly home. Hence, if the soul, in its first assuming a human body and sojourn on earth, fails to acquire that experience for which it descends from heaven, and becomes contaminated by that which is polluting, it must re-inhabit a body again and again till it is able to ascend in a purified state through repeated trials. Thus we are told that<sup>22</sup> "All souls are subject to transmigration (עֲמִין בְּגִלְגּוּלִים), and men do not know the ways of the Holy One, blessed be he; they do not know that they are brought before the tribunal, both before they enter into this world and after they quit it, they are ignorant of the many transmigrations and secret probationations which they have to undergo, and of the number of souls and spirits which enter into this world, and do not return to the palace of the Heavenly King. Men do not know how the

22 כל נשמות עמין בגלגולא ולא ידעין בני נשא אודותי דקדושא בריך הוא הדין קיימא מילא  
הדין אודותי בני נשא בכל יומא ובכל עידן הדין נשמות עמין בדינא עד לא יתון להאי עלמא הדין  
עמין בדינא לבתר דנפקי מדאי עלמא כמא גלגולין וכמא עברין סתמין עבדן קדושא בריך הוא  
בדאי כמא נשמות עמין ודעין עמילאין אולין בדחוא עלמא דלא עמין לשרדא רמלא.

souls revolve like a stone which is thrown from a sling ; as it is written—' And the souls of thine enemies them shall he sling out, as out of the middle of a sling.' (1 Sam., xxv, 29.) But the time is at hand when these mysteries will be disclosed." (*Sohar*, ii, 99 b.)

The transmigration of the soul into another body, however, is restricted to three times ; and if two souls in their third residence in human bodies are still too weak to resist all earthly trammels and to acquire the necessary experience, they are both united and sent into one body, so that they may be able conjointly to learn that which they were too feeble to do separately. It sometimes, however, happens that it is the singleness and isolation of the soul which is the source of her weakness, and she requires help to pass through her probation. In that case she chooses for a companion a soul which has more strength and better fortune. The stronger of the two then becomes as it were the mother ; she carries the sickly one in her bosom, and nurses her from her own substance, just as a woman nurses her child. Such an association is therefore called pregnancy (עיבור), because the stronger soul gives as it were life and substance to the weaker companion.<sup>23</sup>

וכמה עלמין אחתהך בהו ועלמא דאחיהך בכמה מליאן סלימין ובני נשא לא ידעין ולא משגיחין דידן  
 מוהגלגלן נשמוחין נאבנא בקוססתא כמה דמא אמד ואח נשש איובך יעלענה בחוך קא דקלע השתא  
 איה לגלגל דמא כלי ודור חלק ב' דף צט ב'

23 According to Josephus, the doctrine of the transmigration of souls into other bodies (*μετεμύχως*), was also held by the Pharisees (comp. *Antiq.* xviii, 1, 8 : de Bell. *Jud.* ii, 8, 14), restricting, however, the metempsychosis to the righteous. And though the Midrashim and the Talmud are silent about it, yet from Saadia's vituperations against it (אבן אימיר שמצאני אנשים מבי שנקראים יודים) (*Emunoth ve-Deoth*, vi, 7 ; viii, 3) there is no doubt that this doctrine was held among some Jews in the ninth century of the present era. At all events it is perfectly certain that the Karaites firmly believed in it ever since the seventh century. (Comp. Frankel, *Monatschrift*, x, 177, &c.) St. Jerome assures us that it was also propounded among the early Christians as an esoteric and traditional doctrine which was entrusted to the select few, (*abscondite quasi in foveis viperarum versari et quasi haereditario malo serpere in paucis*. Comp. *epist. ad Demetriadem*) ; and Origen was convinced that it was only by means of this doctrine that certain Scriptural narratives, such as the struggle of Jacob with Esau before their birth, the reference about Jeremiah when still in his mother's womb, and many others, can possibly be explained. (*περί ἀρχῶν* i, 1, cap. vii ; *Adver. Celsum*, i, 3.

As the world, like all other living beings, is a further expansion of the Deity's own substance, it too must ultimately share that blessedness which it enjoyed in its first evolution. This is indicated in the letter ב with which the history of the creation begins (*i.e.* ב"ראשית), and which is also the first letter in the word *blessing* (ב"רכה).<sup>24</sup> Even the archangel of wickedness, or the *venomous beast* (חוי"א בישא), or Samäel (סמאל), as he is called, will be restored to his angelic nature and name, inasmuch as he too, like all other beings, proceeded from the same infinite source of all things. The first part of his name (סם), which signifies *venom*, will then be dropped, and he will retain the second part (אל), which is the common name of all the angels. This, however, will only take place at the advent of Messiah. But his coming is retarded by the very few new souls which enter into the world; as many of the old souls which have already inhabited bodies have to re-enter those bodies which are now born, in consequence of having polluted themselves in their previous bodily existence, and the soul of the Messiah, which, like other souls, has its pre-existence in the world of the *Sephiroth*, cannot be born till all human souls have passed through their period of probation on this earth, because it is to be the last born one at the end of days. Then the great Jubilee year will commence, when the whole pleroma of souls (אוצר הנשמות), cleaned and purified shall return into the bosom of the Infinite Source; and they shall be in "the Palace which is situate in the secret and most elevated part of heaven, and which is called the *Palace of Love* (היכל אהבה). There the profoundest mysteries are; there dwells the Heavenly King, blessed be he, with the holy souls, and is united with them by a loving kiss.

<sup>24</sup> The notion that the creation is a blessing, and that this is indicated in the first letter, is already propounded in the Midrash, as may be seen from the following remark. The reason why the Law begins with *Beth*, the second letter of the Alphabet, and not with *Aleph*, the first letter, is that the former is the first letter in the word *blessing*, while the latter is the first letter in the word *accursed*, למד בבית משה לשון ברכה ולא בא"ל לשון שחיה (Midrash Rabba, sec. i).

(*Sohar*, ii, 97 a.) "This kiss is the union of the soul with the substance from which it emanated." (*Ibid.*, i, 168 a.) Then hell shall disappear; there shall be no more punishment, nor temptation, nor sin: life will be an everlasting feast, a Sabbath without end. Then all souls will be united with the Highest Soul, and supplement each other in the Holy of Holies of the Seven Halls (שבע היכלות). Everything will then return to unity and perfection—everything will be united into one idea, which shall be over, and fill the whole universe. The basis of this idea, however (*i.e.*, the light which is concealed in it), will never be fathomed or comprehended; only the idea itself which emanates from it shall be comprehended. In that state the creature will not be distinguished from the Creator, the same idea will illuminate both. Then the soul will rule the universe like God, and what she shall command he will execute. (*Sohar*, i, 45 a and b.)

V. *The Kabbalistic view of the Old Testament, and its relation to Christianity.*

We have already seen that the Kabbalah claims a pre-Adamite existence, and asserts that its mysteries are covertly conveyed in the first four books of the Pentateuch. Those of us who read the Books of Moses, and cannot discover in them any of the above-mentioned doctrines, will naturally ask for the principles of exegesis whereby these secrets are deduced from or rather introduced into the text. These principles are laid down in the following declaration:—"If the Law simply consisted of ordinary expressions and narratives, *e. gr.*, the words of Esau, Hagar, Laban, the ass of Balaam, or of Balaam himself, why should it be called the Law of truth, the perfect Law, the true witness of God? Each word contains a sublime source, each narrative points not only to the single instance in question, but also to generals." (*Sohar*, iii, 149 b.) "Woe be to the son of man who says that the *Tora* (Pentateuch) contains common sayings

and ordinary narratives.<sup>25</sup> For, if this were the case, we might in the present day compose a code of doctrines from profane writings which should excite greater respect. If the Law contains ordinary matter, then there are nobler sentiments in profane codes. Let us go and make a selection from them, and we shall be able to compile a far superior code.<sup>26</sup> But

25 This view that the mere literal narrative is unworthy of inspiration, and that it must contain a spiritual meaning concealed under the garment of the letter, is not peculiar to the Kabbalah. Both the Synagogue and the Church have maintained the same from time immemorial. Thus the Talmud already describes the impious Manasseh, King of Israel, as making himself merry over the narratives of the Pentateuch and ironically asking (מנשה בן חזקיה שדוה יושב) דורש בהגותו של דתו אמר וכי לא היה לו לשדוה לכתוב אלא מזהו לכן חסנו וחכמו היה (פלוס לאלין וליך ראובן בימי קציר חטים ויכנסו דוראים בשדה) whether Moses could not find anything better to relate than that "Loton's sister was Timna" (Gen. xxxvi, 22); "Timna was the concubine of Eliphaz" (*ibid.*, v. 12); that "Reuben went in the days of the wheat harvest, and found mandrakes in the field" (*ibid.*, xxx, 14), &c., &c. And it is replied that these narratives contain another sense besides the literal one. (*Sanhedrim*, 99 b.) Hence the rule שאירע לנבואה כל מה שאירע לנבואה (סימן לנבואה), what happened to the fathers is typical of the children.

26 Origen's words are almost literally the same—"Si adsideamus litterae et secundum hoc vel quod Judaeis, vel quod vulgo videtur, accipiamus quae in lege scripta sunt, erubescere dicere et confiteri quia tales leges dedit Deus: videbuntur enim magis elegantes et rationabiles hominum leges, verbi gratia vel Romanorum vel Atheniensium, vel Lacedaemoniorum. *Homil. vii, in Levit.* Again, the same erudite father says, "What person in his senses will imagine that the first, second, and third day, in connection with which morning and evening are mentioned, were without sun, moon and stars, nay that there was no sky on the first day? Who is there so foolish and without common sense as to believe that God planted trees in the garden eastward of Eden like a husbandman, and planted therein the tree of life, perceptible to the eyes and senses, which gave life to the eater thereof; and another tree which gave to the eater thereof a knowledge of good and evil? I believe that everybody must regard these as figures, under which a recondite sense is concealed." *Lib. iv, cap. ii, περί ἀρχών.* Huet, *Origeniana*, p. 167. Comp. Davidson, *Sacred Hermeneutics*, Edinburgh, 1843, p. 99, &c. It must, however, not be supposed that this sort of interpretation, which defies all rules of sound exegesis and common sense, is confined to the ancient Jewish Rabbins or the Christian fathers. The Commentary on Genesis and Exodus by Chr. Wordsworth, D.D., Canon of Westminster, may fairly compete in this respect with any production of bygone days. Will it be believed that Dr. Wordsworth actually sees it "suggested by the *Holy Spirit Himself*," that Noah drunk, exposing his nakedness, and mocked by his own child, Ham, is typical of Christ who drank the cup of God's wrath, stripped Himself of His heavenly glory, and was mocked by his own children the Jews? But we must give the Canon's own words. "Noah drank the wine of his vineyard; Christ drank the cup of God's wrath, which was the fruit of the sin of the cultivators of the vineyard, which he had planted in the world. Noah was made naked to his shame; Christ consented for our sake to strip Himself of His heavenly glory, and took on him the form of a servant. (Phil. ii, 7.) He laid aside his garments, and washed his disciples' feet. (John, xiii, 4.) He hid not his face from shame and spitting. (Isa. l, 6.) When he was on the Cross, they that passed by reviled Him. (Matt. xxvii, 39.) He was mocked by His

every word of the Law has a sublime sense and a heavenly mystery. . . . Now the spiritual angels had to put on an earthly garment when they descended to this earth ; and if they had not put on such a garment, they could neither have remained nor be understood on the earth. And just as it was with the angels so it is with the Law. When it descended on earth, the Law had to put on an earthly garment to be understood by us, and the narratives are its garment. There are some who think that this garment is the real Law, and not the spirit which it clothed, but these have no portion in the world to come ; and it is for this reason that David prayed, ' Open thou mine eyes that I may behold the wondrous things out of the Law.' (Ps. cxix, 18.) What is under the garment of the Law ? There is the garment which every one can see ; and there are foolish people who, when they see a well-dressed man, think of nothing more worthy than this beautiful garment, and take it for the body, whilst the worth of the body itself consists in the soul. The Law too has a body : this is the commandments, which are called the body of the Law. This body is clothed in garments, which are the ordinary narratives. The fools of this world look at nothing else but this garment, which consists of the narratives in the Law ; they do not know any more, and do not understand what is beneath this garment. But those who have more understanding do not look at the garment but at the body beneath it (*i.e.*, the moral) ; whilst the wisest, the servants of the Heavenly King, those who dwell at Mount Sinai, look at nothing else but the soul (*i.e.*, the secret doctrine), which is the root of all the real Law, and these are destined in the world to come to behold the *Soul of this Soul* (*i.e.*, the Deity), which breathes in the Law." (*Sohar*, iii, 152 a.)

own children, the Jews. He deigned to be exposed to insult for our sakes, in shame and nakedness on the Cross (Heb. xii, 2), in order that we might receive eternal glory from His shame, and be clothed through His weakness with garments of heavenly beauty." (*Commentary on Genesis and Exodus*, London, 1864, p. 52.)

The opinion that the mysteries of the Kabbalah are to be found in the garment of the Pentateuch is still more systematically propounded in the following parable. "Like a beautiful woman, concealed in the interior of her palace, who when her friend and beloved passes by, opens for a moment a secret window and is seen by him alone, and then withdraws herself immediately and disappears for a long time, so the doctrine only shows herself to the chosen (*i.e.*, to him who is devoted to her with body and soul); and even to him not always in the same manner. At first she simply beckons at the passer-by with her hand, and it generally depends upon his understanding this gentle hint. This is the interpretation known by the name **רמז**. Afterwards she approaches him a little closer, lisps him a few words, but her form is still covered with a thick veil, which his looks cannot penetrate. This is the so called **דרוש**. She then converses with him with her face covered by a thin veil; this is the enigmatic language of the **הנדרה**. After having thus become accustomed to her society, she at last shews herself face to face and entrusts him with the innermost secrets of her heart. This is the secret of the Law, **סוד**.<sup>27</sup> He who is thus far initiated in the mysteries

<sup>27</sup> The notion that the Bible is to be explained in this fourfold manner was also propounded by the Jewish doctors generally, long before the existence of the Kabbalah (Comp. Ginsburg, *Historical and Critical Commentary on Ecclesiastes*. Longman, 1861, p. 30), and has been adopted by some of the fathers and schoolmen. Origen, although only advocating a threefold sense, viz. :—**σώματικος, ψυχικός, πνευματικός**, to correspond to the Platonic notion of the component parts of man, viz. :—**σῶμα, ψυχή, πνεῦμα**, almost uses the same words as the Kabbalah. "The sentiments of Holy Scriptures must be imprinted upon each one's soul in a threefold manner, that the more simple may be built up by the *flesh* (or body) of Scripture, so to speak, by which we mean the obvious explanation; that he who has advanced to a higher state may be edified by the *soul* of Scripture as it were; but he that is perfect, and like to the individuals spoken of by the Apostle (1 Cor. ii, 6, 7), must be edified by the spiritual law, having a shadow of good things to come. *περὶ ἀρχῶν*, lib. iv, cap. ii. Comp. Davidson, *Sacred Hermeneutics*, p. 97. Whilst Nicholas de Lyra, the celebrated commentator and forerunner of the Reformation (born about 1270, died October 23, 1340), distinctly espouses the Jewish four modes of interpretation, which he describes in the following couplet—

"Littera gesta docet, quid credas Allegoria,  
Moralis quid agas: quo tendas anagogia."

Comp. Alexander's edition of Kitto's *Cyclopædia of Biblical Literature*, s. v. LYRA.

of the *Tora* will understand that all those profound secrets are based upon the simply literal sense, and are in harmony with it; and from this literal sense not a single iota is to be taken and nothing to be added to it." (*Sohar* ii, 99.)

This fourfold sense is gradually disclosed to the initiated in the mysteries of the Kabbalah by the application of definite hermeneutical rules, which chiefly affect the letters composing the words. The most prominent of these canons are—

I. Every letter of a word is reduced to its numerical value, and the word is explained by another of the same quantity. Thus from the words "*Lo! three men stood by him*" (Gen. xviii, 2), it is deduced that these three angels were *Michael, Gabriel, and Raphael*, because *והנה שלשה* and *lo! three men*, and *אלו מיכאל גבריאל ורפאל* *these are Michael, Gabriel, and Raphael*, are of the same numerical value, as will be seen from the following reduction to their numerical value of both these phrases.

ו ה נ ה ש ל ש ה  
5 + 800 + 300 + 5 + 50 + 5 + 6 = 701

א ל ו מ י כ א ל  
+ 30 + 1 + 20 + 10 + 40 + 6 + 30 + 1

ג ב ר י א ל  
+ 30 + 1 + 10 + 200 + 2 + 3

ו ר פ א ל  
80 + 1 + 80 + 200 + 6 = 701

This rule is called **גמטריא = גרמטיא** which is a metathesis of the Greek word *γράφμα, γραμμή, or γραμματεία*, in the sense of numbers as represented by letters.

2. Every letter of a word is taken as an initial or abbreviation of a word. Thus every letter of the word **בראשית**, the first word in Genesis, is made the initial of a word, and we obtain **בראשית ראה אלחים שיקבלו ישראל תורה** *in the beginning God saw that Israel would accept the Law*. This rule is

denominated נטרירקון = *notaricum*, from *notarius*, a shorthand writer, one who among the Romans belonged to that class of writers who abbreviated and used single letters to signify whole words.

✓ 3. The initial and final letters of several words are respectively formed into separate words. Thus from the beginnings and ends of the words *מי יעלה לנו השמימה who shall go up for us to heaven?* (Deut. xxx, 12) are obtained *מילה circumcision* and *יהוה Jehovah*, and inferred that God ordained circumcision as the way to heaven.

✓ 4. Two words occurring in the same verse are joined together and made into one. Thus *מי who* and *אלה these* are made into *אלהים God* by transposing the ו and ה. *Vide supra*, p. 192.<sup>28</sup>

5. The words of those verses which are regarded as containing a peculiar recondite meaning are ranged in squares in such a manner as to be read either vertically or boustrophedonally, beginning at the right or left hand. Again the words of several verses are placed over each other, and the letters which stand under each other are formed into new words. This is especially seen in the treatment of three verses in Exod. xiv, (viz., 19-21), which are believed to

<sup>28</sup> The above-mentioned exegetical canons, however, are not peculiar to the Kabbalah. They have been in vogue among the Jews from time immemorial. Thus the difficult passage in Isa. xxi, 8, ויקרא ליון which is rendered in the Authorised Version, and he cried, *A lion!* or '*as a lion*,' as the margin has it, is explained by the ancient Jewish tradition as a prophecy respecting Habakkuk, who, as Isaiah foresaw, would in coming days use the very words here predicted. (Comp. Isa. xxi, 8, 9, with Hab. ii, 1); and this interpretation is obtained by rule i; inasmuch as *ליון lion* and *חבקוק Habakkuk* are numerically the same, viz.:—

ה	י	ר	א	and	ק	ו	ק	ב	ח				
5	10	200	1	=	216	and	100	6	100	2	8	=	216

(See the Commentaries of Rashi, Ibn Ezra, and Kimchi on Isa. xxi, 8.) Again, in the fact that Jacob made Joseph '*a coat of many colours*' (Gen. xxxvii, 3), as the Authorised Version has it, or '*pieces*,' as it is in the margin, the Midrash or the ancient Jewish exposition, sees the sufferings of Joseph indicated; inasmuch as *מסס* according to rule ii, is composed of the initials of *פוטפאר Potiphar*, who imprisoned Joseph; *סוחרים merchants* *ישמעאלים Ishmaelites* and *מדיאנים Midianites*, who bought him and sold him again as a slave. (Gen. xxxvii, 25-28; xxxix, 1; comp. Rashi on Gen. xxxvii, 3.) For more extensive information on this subject, we must refer to Ginsburg's *Historical and Critical Commentary on Ecclesiastes*, Longman, 1861, p. 30, &c.

contain the three Pillars of the *Sephiroth*, and the Divine Name of seventy-two words. The following tables will illustrate this principle of interpretation. The first of these three verses ויסע מלאך האלהים ההלך לפני מחנה ישראל וילך מאחריהם ויסע עמוד הענן מפניהם ויעמד מאחריהם, *and the angel of God, which went before the camp of Israel, removed and went behind them; and the pillar of the cloud went from before their face, and stood behind them* (Exod. xiv, 19), is read boustrophedonally, as follows:—

## I.

ו	א	ל	ש	א	ע	מ	מ
י	ל	פ	ר	ח	ע	פ	ד
ס	ח	נ	א	ר	ס	נ	מ
ע	י	י	ל	י	ו	י	א
מ	ס	מ	ו	ח	ד	ח	ח
ל	ח	ח	י	ס	ח	ס	ר
א	ח	נ	ל	ו	ע	ו	י
ך	ל	ח	ך	י	נ	י	ח
ח	ך	י	מ	ס	ן	ע	ס

The second of these three verses ויבא בן מחנה מצרים ובין מחנה ישראל ויהי הענן והחשך ויאר את הלילה ולא קרב זה אל זה כל הלילה, *and it came between the camp of the Egyptians and the camp of Israel; and it was a cloud and darkness to them, but gave light by night to these, so that the one came not near the other all the night* (Exod. xiv, 20), is in the first place divided, and read from right to left, beginning at the top, as exhibited in the following diagram.

## II.

ח	מ	ן	י	ב	א	ב	י	ו
ב	ו	ס	י	ר	צ	מ	ח	נ
ר	ש	י	ח	נ	ח	מ	ן	י
נ	ע	ח	י	ח	י	ו	ל	א
א	י	ו	ך	ש	ח	ח	ו	ן
ו	ח	ל	י	ל	ח	ת	א	ר
ל	א	ח	ז	ב	ר	ק	א	ל
ח	ל	י	ל	ח	ל	כ	ח	ו

It is then divided in the following manner, and read from left to right, beginning at the bottom.

## III.

ח	כ	ל	ח	ל	י	ל	ח
ק	ר	ב	ז	ח	א	ל	ז
ח	ל	י	ל	ח	ו	ל	א
ש	ך	ו	י	א	ר	א	ת
י	ח	ע	נ	ן	ו	ח	ח
י	ש	ר	א	ל	ו	י	ח
ו	ב	י	ן	מ	ח	נ	ח
ח	נ	ח	מ	צ	ר	י	ס
ו	י	ב	א	ב	י	ן	מ

Whilst the third of these three verses **ויט משה את ידו על הים ויולך יהוה את הים ברוח קדים עזה כל הלילה ושם את הים לחרבה ויבקע המים**, *and Moses stretched out his hand over the sea ; and the Lord caused the sea to go back by a strong east wind all that night, and made the sea dry land, and the waters were divided* (Exod. xiv. 21), is divided as follows, and read from the right, beginning at the bottom.

## IV.

י	ב	ק	ע	ו	ח	מ	י	ס
ח	י	ס	ל	ח	ר	ב	ח	ו
י	ל	ח	ו	י	ש	ס	א	ח
י	ס	ע	ז	ח	כ	ל	ח	ל
ח	י	ס	ב	ר	ו	ח	ק	ד
ו	ל	ך	י	ח	ו	ח	א	ח
ד	ו	ע	ל	ח	י	ס	ו	י
ו	י	ט	מ	ש	ח	א	ח	י

The three verses which have thus yielded the three Pillars of *the Sephiroth*, are then joined together in groups of three letters in the order in which they are read in diagrams ii, iii, and iv, and they then yield the seventy-two divine names which the Kabbalah assigns to the Deity,<sup>29</sup> as follows :—

<sup>29</sup> The limits of this Essay preclude the possibility of entering into a disquisition on the seventy-two Divine names. Those who wish to examine the subject more extensively we must refer to the Commentaries on the *Sohar* (Exod. xiv. 19-21), mentioned in the third part of this Essay; and to Bartolucci, *Bibliotheca Magna Rabbinica*, Pars iv, p. 280 *seq.*, where ample information is given on this and kindred subjects.

נחמה	אבנא	ללח	מחש	עלם	סיש	יילי	חיו
Adorandus.	Longanimis.	Annunciatus.	Quesitus.	Salus.	Spes.	Audiliator.	Exaltator.
חקם	חוי	מבז	ייל	חחע	לאו	אלר	חוי
Advocatus.	Ens.	Sublevator.	Decantatus.	Opportunus.	Exultabundus.		Recordabilis.
חחו	מלח	יי	נלך	פחל	לוו	כלי	לאו
Expetendus.	Custos.	Dexter.	Fortis.	Ervens.	Exauditor.	Justitia.	Dominator.
ושר	לכב	אום	ריי	שאח	ירח	חמא	נחח
Rector.	Solus.	Adolescentia.	Sanator.	Festinus.	Salvator.	Invocandus.	Mirabilis.
יין	רחע	חעם	אני	מנר	כוק	לחח	ירח
Propulsator.	Adivtor.	Refugium.	Facies.	Gloria.	Deprecatio.	Expectatio.	Cogitabundus.
מיה	עשל	ערי	מאל	ילח	ויל	מיר	חחח
Revelator.	Magnificus.	Operator.	Comptiens.	Doctor.	Matutinus.	Custos.	Liberator.
פוי	מבז	ניח	ננא	עמם	חחש	דני	וחו
Erector.	Aeternum.	Regnator.	Verus.	Alissimus.	Lestabundus.	Clemens.	Maximus.
מחוי	ענו	יחח	וכב	מנר	חחח	ייל	נקם
Mercator.	Laudabilis.	Amabilis.	Benedictus.	Justus.	Oriens.	Animus.	Protector.
מום	חוי	יבס	ראח	חבו	איע	מנח	דסב
Requies.	Multus.	Dens.	Premium.	Bonus.	Dator.	Assistens.	Deprecabilis.

6. The letters of words are changed by way of anagram and new words are obtained. This canon is called **תמורה** or **חילוף אותיות**, *permutation*, and the commutation is effected according to fixed rules. Thus the alphabet is bent exactly

in the middle, and one half is put over the other, and by changing alternately the first letter or the first two letters at the beginning of the second line, twenty-two commutations are produced *ex. gr.* :—

11 10 9 8 7 6 5 4 3 2 1  
 [ א ב ג ד ה ו ז ח ט י כ ]  
 [ ל ת ש ר ק צ פ ע ס נ מ ]  
 [ א ב ג ד ה ו ז ח ט י כ ל ] or  
 [ ב ת ש ר ק צ פ ע ס נ מ ]

These anagrammic alphabets obtain their respective names from the first two specimen pairs of letter which indicate the interchange. Thus, for instance, the first is called *Albath* אל"בת from the first words, the second *Abgath* אב"גת, and so on. The following table exhibits the established rules of the alphabetical permutations.

כס	יג	מס	הע	וט	רז	הק	דר	גש	בת	אל	1. ALBATH.
לס	כנ	יס	פע	חס	רז	וק	הר	דש	גת	אכ	2. ABGATH.
במ	לג	כס	יע	מס	חצ	וק	ור	הש	רת	אג	3. AGDATH.
מז	לס	כע	יס	מצ	זק	ור	וש	הח	בג	אד	4. ADBAG.
גג	לע	כט	לע	מס	יצ	זק	ור	וש	רת	אח	5. AHBAD.
נס	לע	כט	לע	מס	יצ	זק	ור	וש	רת	אח	6. AVBA.
רס	נע	מס	לע	כט	לע	מס	יצ	זק	ור	אז	7. AZBAV.
סע	נע	מס	לע	כט	לע	מס	יצ	זק	ור	אז	8. ACHBAZ.
הע	סנ	כצ	מק	לר	כש	ית	דו	גז	בח	אס	9. ATBAOH.
עס	סנ	כצ	מק	לר	כש	ית	דו	גז	בח	אס	10. AIBAT.
וט	עצ	כע	מק	לר	כש	ית	דו	גז	בח	אס	11. ACHBL.
סצ	עק	כר	נש	מח	חז	הח	דו	גז	בח	אס	12. ALBAOH.
זצ	פק	כר	נש	מח	חז	הח	דו	גז	בח	אס	13. AMBAL.
צק	פז	כר	נש	מח	חז	הח	דו	גז	בח	אס	14. ANBAM.
קז	פז	כר	נש	מח	חז	הח	דו	גז	בח	אס	15. ASBAN.
קר	צש	כר	נש	מח	חז	הח	דו	גז	בח	אס	16. AABAS.
מר	קש	כר	נש	מח	חז	הח	דו	גז	בח	אס	17. AFBA.
רש	קת	כר	נש	מח	חז	הח	דו	גז	בח	אס	18. AZBAV.
יש	רת	כר	נש	מח	חז	הח	דו	גז	בח	אס	19. ARBAZ.
שת	יל	כר	נש	מח	חז	הח	דו	גז	בח	אס	20. ARBAK.
כת	יל	כר	נש	מח	חז	הח	דו	גז	בח	אס	21. ASHBAR.
לל	יס	כר	נש	מח	חז	הח	דו	גז	בח	אס	22. ATHBAR.

To this list is to be added—

שת	קר	סצ	סע	מז	כל	מי	דח	גז	אב	23. ABGAD.
כת	יש	מר	הק	רז	וט	הע	דר	גז	אל	24. ALBAM.

Besides these canons the Kabbalah also sees a recondite sense in the form of the letters, as well as in the ornaments which adorn them.

As to the relation of the Kabbalah to Christianity, it is maintained that this theosophy propounds the doctrine of the trinity and the sufferings of Messiah. How far this is true may be ascertained from the following passages.<sup>30</sup> "We have already remarked in several places that the daily liturgical declaration about the divine unity is that which is indicated in the Bible (Deut. vi, 43), where *Jehovah* occurs first, then *Elohenu*, and then again *Jehovah*, which three together constitute a unity, and for this reason he [*i.e.*, *Jehovah*] is in the said place called one (אֶחָד). But there are three names, and how can they be one? And although we read one (אֶחָד), are they really one? Now this is revealed by the vision of the Holy Ghost, and when the eyes are closed we get to know that the three are only one. This is also the mystery of the voice. The voice is only one, and yet it consists of three elements, fire [*i.e.*, warmth], air [*i.e.*, breath], and water [*i.e.*, humidity], yet are all these one in the mystery of the voice, and can only be one. Thus also *Jehovah*, *Elohenu*, and *Jehovah* constitute one—three forms which are one. And this is indicated by the voice which man raises [*i.e.*, at prayer], thereby to comprehend spiritually the most perfect unity of the *En Soph* for the finite, since all the three [*i.e.*, *Jehovah*, *Elohenu*, *Jehovah*] are read with the same loud voice, which comprises in itself a trinity. And this is the daily confession of the divine unity which, as a mystery, is revealed by the Holy Ghost. This unity has been explained

30 יְהוָה דכל יומא איהו יְהוָה למנדע ולשוואה רעותא יְהוָה דא הא אסון בבכח דוכתי יְהוָה דכל יומא איהו יְהוָה דקרא ידו"ד קדמאה אלהינו ידו"ד הא כללו דו"ד וע"ד אקרי אהדו"ד הא תלת שמעון אינון דין ואקל על גב דקרינון אהדו"ד אינון דו"ד אלא בדחוינא דרדח קדשא אחידע ואינון בחזו דעינא סתימא למנדע דתלתא אלן אהדו"ד דא איהו דא דקול דאשחמסע קול איהו דו"ד ואיהו תלתא גווינין, אשחמסע ורדחא וסימא וכללו דו"ד ברזא דקול ולאו אינון אלא דו"ד און דכא י"י אלהינו י"י אינון דו"ד, תלתא גווינין ואינון דו"ד דא איהו קול דעבד בר נש ביחדא לשוואה רעותיה ביחדא דכלא מאן סוף עד סופא דכלא בהא קול דקא עבד בהני תלתא דאנון דו"ד דא

in different ways, yet he who understands it in this way is right, and he who understands it in another way is also right. The idea of unity, however formed by us here below, from the mystery of the audible voice which is one, explains the thing." (*Sohar*, ii, 43 b.)

On another occasion we are informed that R. Eleazar, whilst sitting with his father R. Simeon, was anxious to know how the two names, *Jehovah* and *Elohim*, can be interchanged, seeing that the one denotes *mercy* and the other *judgment*. Before giving the discussion between the father and the son, it is necessary to remark that whenever the two divine names, Adonai (אֲדֹנָי) and Jehovah (יְהוָה), immediately follow each other, *Jehovah* is pointed and read (יְהוֹה) *Elohim*. The reason of this, as it is generally supposed, is to avoid the repetition of Adonai, Adonai, since the Tetragrammaton is otherwise always pointed and read (יְהוָה). The Kabbalah, however, as we shall see, discovers in it a recondite meaning.<sup>31</sup> ✓  
 "R. Eleazar, when sitting before his father R. Simeon, said to him, we have been taught that whenever *Elohim* (אֱלֹהִים) occurs, it denotes *justice*. Now how can *Elohim* sometimes be put for *Jehovah*, as is the case in those passages wherein Adonai (אֲדֹנָי) and *Jehovah* (יְהוָה) stand together (Comp. Gen. xv, 8; Ezek. ii, 4, &c.), seeing that the latter denotes *mercy* in all the passages in which it occurs? To which he replied, Thus it is said in the Scripture, 'Know therefore this day and consider it in thine heart, that *Jehovah* is *Elohim*' (Deut. iv, 19); and again it is written '*Jehovah* is *Elohim*.' (*Ibid.*, ver. 35.) Whereupon he [*i.e.*, the son] said, I know this forsooth, that justice is sometimes tempered with

אֲדֹנָי יְהוָה דָּבָר יוֹמָא דְּאַתְגַּל בְּרֹא דְרַחֵם קְדָשָׁא וּבְמִדָּה גּוֹנֵן דִּיחֻדָּא אַתְּעֵר וּכְלָוָה קְשׁוּם מֵאֵן דְּעֵבֵד  
 דְּהָא עֵבֵד וּמֵאֵן רַעֲבִיד דְּהָא עֵבֵד, אֲבָל דְּהָא יְחֻדָּא דְּקָא אֵין מוֹחֲזִי מִתְּתָא בְּרֹא דְקֹל דְּאִהּוּ דְּרִי,  
 דָּא הוּא בְּרִיָּא דְּמִלְּהִי וְזֹדֵר חֶלֶק ב' דָּךְ מ"ג ב'  
 31 רַבִּי אֱלֶזָּר הוּא יָתִיב קְמִידָא דְּר"ש אֲבִי אִמְר לִיה הָא תְּנִינן אֱלֹהִים בְּכָל אַתְרֵי דִּינָא הוּא, יוֹדֵד ה"א  
 וְא"ר ה"א אִית אַתְרֵי דְּאִקְרִי אֱלֹהִים כְּגוֹן אֲדֹנָי יְהוָה, אֲמַאי אִקְרִי אֱלֹהִים הוּא אַתְּוֹן רַחֲמֵי אֵינִין בְּכָל  
 אַתְרֵי אִמְר לִיה הָא הוּא כְּתִיב בְּקֹרָא, דְּכַתִּיב וִידַעַת הַיּוֹם וְחִשְׁבֹּתָ אֵל לִבְכֶּךָ כִּי י"י הוּא הָאֱלֹהִים,  
 וְכַתִּיב י"י הוּא הָאֱלֹהִים, אִמְר לִיה מִלָּה דָּא יִדְעָנָא דְּבִאתָר דְּאִית דִּינָא אִית רַחֲמֵי, וְלִמְנָא בְּאַתְרֵי דְּאִית

mercy and mercy with justice. Quoth he [*i.e.*, the father], Come and see that it is so; Jehovah indeed does signify mercy whenever it occurs, but when through sin mercy is changed into justice, then it is written Jehovah (יהוה), but read *Elohim* (אלהים). Now come and see the mystery of the word [*i.e.*, Jehovah]. There are three degrees, and each degree exists by itself [*i.e.*, in the Deity], although the three together constitute one, they are closely united into one and are inseparable from each other." (*Sohar*, iii, 65 a.)

We shall only give one more passage bearing on the subject of the Trinity.<sup>32</sup> "He who reads the word (אחד) *One* [*i.e.*, in the declaration of the divine unity שמע] must pronounce *the Aleph* (א) quickly, shorten its sound a little, and not pause at all by this letter, and he who obeys this, his life will be lengthened. Whereupon they [*i.e.*, the disciples] said to him [*i.e.*, to R. Ilai], he [*i.e.*, R. Simeon] has said, There are two, and one is connected with them, and they are three; but in being three they are one. He said to them, those two names, Jehovah Jehovah, are in the declaration 'Hear O Israel' (Deut. vi, 4), and *Elohenu* (אלהנו), between them, is united with them as the third, and this is the conclusion which is sealed with the impression of *Truth* (אמת). But when these three are combined into a unity, they are one in a single unity." (*Sohar*, iii, 262 a.) Indeed one Codex of the *Sohar* had the following remark on the words "Holy, holy, holy is the Lord of hosts" (Isa. iv, 3); קדוש זה אב קדוש זה בן קדוש; זה רוח הקדש, *the first holy refers to the Holy Father; the second to the Holy Son; and the third to the Holy*

רחמי אית דינא אמר ליה תא דזי רחמי דר"ד בל אתר רחמי ובשעתא דמחסי דייביא רחמי לדינא  
כדין כתיב יהוה וקרינן ליה אלהים; אבל תא דזי רחמי דמלא ג' דרגין אינון וכל דרגא דרגא בלחודי  
ואעב' דכלא דזי ומתקשר' בחד ולא מתפרשי דא מן דא; ודזר דלק ג' דף ס"ה א'

32 מאן דאמר אחד אצטרך לחסופא אלף ולקצרא קריאה דילה ולא יעבב בדאי אות כלי' ומאן  
דעביד דא יתארבון דזי' אמרו ליה תו אמר תרין אינון דודא אשתתף בהו ואינון תלתא וכד דזי תלתא  
אינון דזי' אמר לון אלן תרין שמחין דשמע ישראל דאינון יהוה יהוה אלהינו אשתתף בהו ואינון  
חוטמא דגושנקא אמת' וכד מתחבין כדא אינון דזי ביהודא דזא; ודזר דלק ג' דף קס"ב א'

*Ghost*.<sup>33</sup> This passage, however, is omitted from the present recensions of the *Sohar*. Some Jewish writers have felt these passages to be so favourable to the doctrine of the Trinity, that they insist upon their being interpolations into the *Sohar*, whilst others have tried to explain them as referring to the *Sephiroth*.<sup>34</sup>

As to the atonement of the Messiah for the sins of the people, this is not only propounded in the *Sohar*, but is given as the explanation of the fifty-third chapter of Isaiah.<sup>35</sup> "When the righteous are visited with sufferings and afflictions to atone for the sins of the world, it is that they might atone for all the sins of this generation. How is this proved? By all the members of the body. When all members suffer, one member is afflicted in order that all may recover. And which of them? The arm. The arm is beaten, the blood is taken from it, and then the recovery of all the members of the body is secured. So it is with the children of the world: they are members one of another. When the Holy One, blessed be he, wishes the recovery of the world, he afflicts one righteous from their midst, and for his sake all are healed. How is this shown? It is written—'He was wounded for our transgressions, he was bruised for our iniquities, . . . and with his stripes we are healed.' (Isa. liii, 5.) 'With his stripes,' *i.e.*, healed, as by the wound of bleeding an arm, and with this wound we are healed, *i.e.*, it was a healing to

33 Comp. Galatinus, *De Arcanis Cathol.* lib. ii, c. 3, p. 31; who says that some Codices of the Chaldee paraphrase in Isa. vi, 3, had also קדוש אבא קדוש בריא קדוש קדוש the Holy Father, the Holy Son, and the Holy Ghost; see also Wolf, *Bibliotheca Hebraea* i, 1136; Graetz, *Geschichte der Juden* vii, 249.

34 Comp. Joel, *Die Religionsphilosophie des Sohars*. Leipzig, 1849, p. 240 ff.

35 בשעתא דחפסון צדיקיא במרעין או במכחשין בגין לכפרא על עולמא דהוי, כדן יחפסון כל חובי דראי. מנלן מכל שייסי גופא. בשעתא דכל שייסין בעקאו ומרע סגי שרייא עליהו שייסא דראי אצטרין לאלקא בגין דחפסון כללוי. ומנו דרועה. דרועא אלקי ואסיקו מניה דסא כדן דא אסוותא לכל שייסי גופא. און חכי בני עולמא אינן שייסין דא עם דא. בשעתא דבעי קב"ה למידב אסוותא לעולמא אלקי לחד צדיקא בינייהו במרעין ובמכחשין ובגנידה דאיב אסוותא לכלא מנלן דכתיב דהוא מחולל משפיענו מדוכא מעוונותיינו וגו' ובחברתו נרמא לנו ובחברתו אקוותא דרמא מכתא דאקין דרועא, ובחברתו דבחרה נרמא לנו אסוותא דהא לנו לכל שייסין דגופא: ודור דלק ג' דין ר"ה דא

each one of us as members of the body." (*Sohar*, iii, 218 a.) To the same effect is the following passage.<sup>36</sup> "Those souls which tarry in the nether garden of Eden hover about the world, and when they see suffering or patient martyrs and those who suffer for the unity of God, they return and mention it to the Messiah. When they tell the Messiah of the afflictions of Israel in exile, and that the sinners among them do not reflect in order to know their Lord, he raises his voice and weeps because of those sinners, as it is written, 'he is wounded for our transgressions.' (Isa. liii, 5.) Whereupon those souls return and take their place. In the garden of Eden there is one palace which is called the palace of the sick. The Messiah goes into this palace and invokes all the sufferings, pain, and afflictions of Israel to come upon him, and they all come upon him. Now if he did not remove them thus and take them upon himself, no man could endure the sufferings of Israel, due as punishment for transgressing the Law; as it is written—'Surely he hath borne our griefs and carried our sorrows, &c. (Isa. liii, 4, with Rom. xii, 3, 4.) When the children of Israel were in the Holy Land they removed all those sufferings and afflictions from the world by their prayers and sacrifices, but now the Messiah removes them from the world." (*Sohar*, ii, 212 b.)

That these opinions favour, to a certain extent, the doctrines of the Trinity and the Atonement, though not in the orthodox sense, is not only admitted by many of the Jewish literati who are adverse to the Kabbalah, but by some of its

36 אנו נשמתין בדגנתא דעין לחמא . . . משמשי ומסחכל באינון מאריהון דמאבין ובני מרעין ואנון דסבלין על ידחמא ומאריהון ותאבין ואמרין ליה למשיחא בשעתא דאמרין ליה למשיחא צערא דישראל בגלותהון ואינון חייביא די בהון ולא מסחכלי למדע למאריהון ארים קלא ובני על אינון חייבין דבהו דה"ד והוא מחולל מסשעינו מדוכא מעונותינו . תיבין אינון נשמתין וקיימן בארתייהו . בגנתא דעין אית חיכלא דחמא דאקרי חיכלא דבני מרעין כדן משיחא עאל בדהו חיכלא וקארי לכל מרעין וכל מאבין כל יסוריהון דישראל דיתון עליה וכלהו אחיין עליה ואלמלא דאידו אקל מעליהו דישראל ונשיל עליה לא היו בר נש דיכל למסבל יסוריהון דישראל על עונשי דאורייתא . דה"ד אכן חליינו הוא נשא ונו' . . . כד היו ישראל בארצא קדישא באינון פולחנין וקרביני דהו עבדי הו מסלקין כל אינון מרעין ויסורין מעלמא . השתא משיחא מסלק לון מבני עלמא : ודור חלק ב' דן ריב א'

friends. Indeed, the very fact that so large a number of Kabbalists have from time to time embraced the Christian faith would of itself show that there must be some sort of affinity between the tenets of the respective systems. Some of these converts occupied the highest position in the Synagogue, both as pious Jews and literary men. We need only specify Paul Ricci, physician to the Emperor Maximilian I; Julius Conrad Otto, author of *The Unveiled Secrets* (גלוי רי"א), consisting of extracts from the *Talmud* and the *Sohar*, to prove the validity of the Christian doctrine (Nürnberg, 1805); John Stephen Rittengal, grandson of the celebrated Don Isaac Abravanel, and translator of *The Book Jetzira*, or of *Creation* (ספר יצירה), into Latin (Amsterdam, 1642); and Jacob Frank, the great apostle of the Kabbalah in the eighteenth century, whose example in professing Christianity was followed by several thousands of his disciples.<sup>37</sup> The testimony of these distinguished Kabbalists, which they give in their elaborate works, about the affinity of some of the doctrines of this theosophy with those of Christianity, is by no means to be slighted; and this is fully corroborated by the celebrated Leo di Modena, who, as an orthodox Jew, went so far as to question whether God will ever forgive those who printed the Kabbalistic works.<sup>38</sup>

The use made by some well-meaning Christians of the above-named Kabbalistic canons of interpretation, in controversies with Jews, to prove that the doctrines of Christianity are concealed under the letter of the Old Testament, will now be deprecated by every one who has any regard for the laws of language. As a literary curiosity, however, we shall give one or two specimens. No less a person than the celebrated

<sup>37</sup> Comp. Peter Beer, *Geschichte der religiösen Secten der Juden*. Berlin, 1822-23, vol. ii, p. 309, &c.

<sup>38</sup> לא ידעתי אם יכחול "לאשר הדברים אמתם הנסתר" Comp. מאיר נדום ed. Fürst, Leipzig, 1840, p. 7.

Reuchlin would have it that the doctrine of the Trinity is to be found in the first verse of Genesis. He submits, if the Hebrew word ברא, which is translated *created*, be examined, and if each of the three letters composing this word be taken as the initial of a separate word, we obtain the expressions אב בן רוח *Son, Spirit, Father*, according to Rule 2 (p. 229). Upon the same principle this erudite scholar deduces the first two persons in the Trinity from the words—"the stone which the builders refused is become the head stone of the corner" (Ps. cxviii, 22), by dividing the three letters composing the word אבן *stone*, into אב בן *Father, Son* (Comp. *De Verbo mirifico*, Basel, 1494). In more recent times we find it maintained that the 'righteousness' spoken of in Daniel ix, 24, means *the Anointed of Jehovah*, because the original phrase, צדק עלמים is by Gematria, = numerical value, (which is Rule 1, given above, p. 229), the same as משיח יהוה. So pleased is the author with this discovery, that he takes great care to remark—"It is a proof which I believe has hitherto escaped the notice of interpreters." Such proofs, however, of the Messiasship of Christ bring no honour to our religion; and in the present day argue badly both against him who adduces them and against him who is convinced by them.

## II.

WE now proceed to trace the date and origin of the Kabbalah. Taking the *ex parte* statement for what it is worth, viz., that this secret doctrine is of a pre-Adamite date, and that God himself propounded it to the angels in Paradise, we shall have to examine the age of the oldest documents which embody its tenets, and compare these doctrines with other systems, in order to ascertain the real date and origin of this theosophy. But before this is done, it will be necessary to summarize, as briefly as possible, those doctrines which are peculiar to the Kabbalah, or which it expounds and elaborates in an especial manner, and which constitute it a separate system within the precincts of Judaism. The doctrines are as follow :—

1. God is boundless in his nature. He has neither will, intention, desire, thought, language, nor action. He cannot be grasped and depicted; and, for this reason, is called *En Soph*, and as such he is in a certain sense not existent.

2. He is not the direct creator of the universe, since he could not will the creation; and since a creation proceeding directly from him would have to be as boundless and as perfect as he is himself.

3. He at first sent forth ten emanations, or *Sephiroth*, which are begotten, not made, and which are both infinite and finite.

4. From these *Sephiroth*, which are the Archetypal Man, the different worlds gradually and successively evolved. These evolutionary worlds are the brightness and the express image of their progenitors, the *Sephiroth*, which uphold all things.

5. These emanations, or *Sephiroth*, gave rise to or created in their own image all human souls. These souls are pre-existent, they occupy a special hall in the upper world of spirits, and there already decide whether they will pursue a good or bad course in their temporary sojourn in the human body, which is also fashioned according to the Archetypal image.

6. No one has seen the *En Soph* at any time. It is the *Sephiroth*, in whom the *En Soph* is incarnate, who have revealed themselves to us, and to whom the anthropomorphisms of Scripture and the *Hagada* refer. Thus when it is said, "God spake, descended upon earth, ascended into heaven, smelled the sweet smell of sacrifices, repented in his heart, was angry," &c., &c., or when the Hagadic works describe the body and the mansions of the Deity, &c., all this does not refer to the *En Soph*, but to these intermediate beings.

7. It is an absolute condition of the soul to return to the Infinite Source whence it emanated, after developing all those perfections the germs of which are indelibly inherent in it. If it fails to develop these germs, it must migrate into another body, and in case it is still too weak to acquire the virtues for which it is sent to this earth, it is united to another and a stronger soul, which, occupying the same human body with it, aids its weaker companion in obtaining the object for which it came down from the world of spirits.

8. When all the pre-existent souls shall have passed their probationary period here below, the restitution of all things will take place; Satan will be restored to an angel of light, hell will disappear, and all souls will return into the bosom of the Deity whence they emanated. The creature shall not then be distinguished from the Creator. Like God, the soul will rule the universe: she shall command, and God obey.

With these cardinal doctrines before us we shall now be

able to examine the validity of the Kabbalists' claims to the books which, according to them, propound their doctrines and determine the origin of this theosophy. Their works are I. *The Book of Creation*; II. *The Sehar*; and III. *The Commentary of the Ten Sephiroth*. As the *Book of Creation* is acknowledged by all parties to be the oldest, we shall examine it first.

#### I. *The Book of Creation or Jetzira.*

This marvellous and famous document pretends to be a monologue of the patriarch Abraham, and premises that the contemplations it contains are those which led the father of the Hebrews to abandon the worship of the stars and to embrace the faith of the true God. Hence the remark of the celebrated philosopher, R. Jehudah Ha-Levi (born about 1086)—“The Book of the Creation, which belongs to our father Abraham, . . . demonstrates the existence of the Deity and the Divine Unity, by things which are on the one hand manifold and multifarious, whilst on the other hand they converge and harmonize; and this harmony can only proceed from One who originated it.”<sup>1</sup> (*Khozari*, iv. 25.) The whole Treatise consists of six *Perakim* (פרקים) or chapters, subdivided into thirty-three very brief *Mishnas* (משנות) or sections, as follows. The first chapter has twelve sections, the second has five, the third five, the fourth four, the fifth three, and the sixth four sections. The doctrines which it propounds are delivered in the style of aphorisms or theorems, and, pretending to be the dicta of Abraham, are laid down very dogmatically, in a manner becoming the authority of this patriarch.

As has already been intimated, the design of this treatise is to exhibit a system whereby the universe may be viewed methodically in connection with the truths given in the Bible,

1 ספר יצירה הוא לאברהם . . . הורה על אלוהותו ואחדותו בדברים מתחלפים מורגבים מצד  
אנל הם מתאחדים ונכמים מצד אחד והסכמתם מצד האחד אשר יסדרם מהם; כחך מאמר  
רביעי כ"ה

thus shewing, from the gradual and systematic development of the creation, and from the harmony which prevails in all its multitudinous component parts, that One God produced it all, and that He is over all. The order in which God gave rise to this creation out of nothing (יצר ממש מתודו), and the harmony which pervades all the constituent parts of the universe are shown by the analogy which subsists between the visible things and the signs of thought, or the means whereby wisdom is expressed and perpetuated among men. Since the letters have no absolute value, nor can they be used as mere forms, but serve as the medium between essence and form, and like words, assume the relation of form to the real essence, and of essence to the embryo and unexpressed thought, great value is attached to these letters, and to the combinations and analogies of which they are capable. The patriarch Abraham, therefore, employs the double value of the twenty-two letters of the Hebrew alphabet;<sup>2</sup> he uses them, both in their phonetic nature and in their sacred character, as expressing the divine truths of the Scriptures. But, since the Hebrew alphabet is also used as numerals, which are represented by the fundamental number *ten*, and since the vowels of the language are also *ten* in number, this decade is added to the twenty-two letters, and these two kinds of signs—*i.e.*, the twenty-two letters of the alphabet and the ten fundamental numbers—are designated *the thirty-two ways of secret wisdom*; and the treatise opens with the declaration<sup>3</sup>—"By thirty-two paths of secret wisdom, the Eternal, the Lord of Hosts, the God of Israel, the living God, the King of the Universe, the Merciful and Gracious, the High and Exalted God, He who inhabiteth eternity, Glorious and Holy is His

<sup>2</sup> It is for this reason that the *Book Jetzira* is also called אבותיה דאברהם אבינו or *the Letters or Alphabet of the Patriarch Abraham*.

<sup>3</sup> בשלשים ושנים מליאת חכמה חקק יי יורה צבאות אלהי ישראל אלהים חיים ומלך עולם אל רחום ורחוק רם וגשם שוכן עד מרום וקדוש שמו בשלשה ספרים בספר וספר וסיפור : ספר יצירה עקי א' משנה א'

name, hath created the world by means of (ספר) numbers, (ספור) phonetic language, and writing (ספר).” (*Sepher Jetzira*, chapter i; *Mishna* i.)

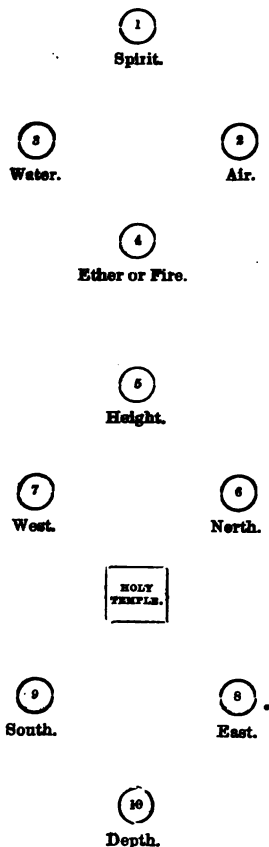
First of all comes the fundamental number ten. This decade is divided into a tetrade and hexade, and thereby is shown the gradual development of the world out of nothing. At first there existed nothing except the Divine Substance, with the creative idea and the articulate creative word as the Spirit or the Holy Spirit, which is one with the Divine Substance and indivisible. Hence, the Spirit of the living God (רוח אלהים חיים) stands at the head of all things and is represented by the number *one*. “One is the spirit of the living God, blessed be His name, who liveth for ever! voice, spirit, and word, this is the Holy Ghost.” (Chapter i, *Mishna* ix). From this Spirit the whole universe proceeded in gradual and successive emanations, in the following order. The creative *air*, represented by number *two*, emanated from the Spirit (רוח מרוח). “In it He engraved the twenty-two letters.” The *water* again, represented by the number *three*, proceeded from the air (מים מרוח). “In it He engraved darkness and emptiness, slime and dung.” Whilst the *ether* or *fire*, represented by the number *four*, emanated from the water (אש ממים). “In it He engraved the throne of His glory, the Ophanim, the Seraphim, the sacred animals, and the ministering angels, and from these three he formed His habitation; as it is written—‘He maketh the wind his messengers, flaming fire his servants’”<sup>5</sup> (Cap. i. *Mish.* ix, x.) These intermediate members between the Creator and the created world sustain a *passive* and *created* relationship to God, and

4 אחת רוח אלהים חיים ברק ומבוך שמו של די העלמים קל ורח דייבור זה רוח הקדש : פרק א' משנה ט'

5 שנים רוח מרוח חקק וחצב בה עשרים ושנים אותיות יסוד שלש אמות ושבעה כפולות ושנים עשר משומות ורוח אחד מהן : שלש מים מרוח חקק וחצב בהן תהו ובהו רשע ומים חקקו כמין שרצה חציבן כמין חומה סכנן כמין מעיבה : ארבע אש ממים חקק וחצב בה כסא הכבוד ואופנים ושנים חזיות הקדש ומלאכי השרת ומשלשתן יסוד מעונו שנאמר עשה מלאכיו רוחות משרתיו אש לחם : פרק א' משנה ט' ו'

*an acting and creating* relationship to the world ; so that God is neither in immediate connection with the created and material universe, nor is His creative fiat hindered by matter.

Then comes the hexade, each unit of which represents space in the six directions (שש קצוות), or the four corners of the world, east, west, north, and south, as well as height and depth which emanated from the ether, and in the centre of which is the Holy Temple supporting the whole (והיכל הקודש מכון באמצע). The position of the decade is therefore as follows—



These constitute the primordial ten, from which the whole universe proceeded.

And lastly follow "the twenty-two letters, by means of which God, having drawn, hewn, and weighed them, and having variously changed and put them together, formed the souls of everything that has been made, and that shall be made."<sup>6</sup> (Chapter ii, *Mishna* ii.) These twenty-two letters of the alphabet are then divided into three groups, consisting respectively of, 1, *the three mothers, or fundamental letters* (שלוש אמות), 2, *seven double* (שבע כפולות) and 3, *twelve simple consonants* (שנים עשר פשוטות), to deduce therefrom a triad of elements, a heptade of opposites, and a duodecimo of simple things, in the following manner.

#### 1. THREE MOTHERS, ALEPH, MEM, SHIN. שלש אמות אמ"ש

The above-named three primordial elements, viz., ether, water and air, which were as yet partially ideal and ethereal, became more concrete and palpable in the course of emanation. Thus the fire developed itself into the visible heaven, the elementary water thickened into the earth, embracing sea and land, whilst the elementary air became the atmospheric air. These constitute the three fundamental types of the universe (שלוש אמות בעולם). The three primordial elements also thickened still more in another direction, and gave birth to a new order of creatures, which constitute the course of the year and the temperatures. From the ether developed itself heat, from the water emanated cold, and from the air proceeded the mild temperature which shows itself in the rain or wet. These constitute the fundamental points of the year (שלוש אמות בשנה). Whereupon the three primordial elements developed themselves in another direction again, and gave rise to the human organism. The ether sent forth the human head, which is the seat of intelligence; the water gave

6 עשרים ושנים אותיות יסוד חקקן חצבן שקלן והמירן צרפן צר בהם נפש כל היצור ונפש כל העתיר לצור : שוק שני שנה ב'

rise to the body, or the abdominal system; whilst the air, which is the central element, developed itself into the genital organ. These three domains, viz., the macrocosm, the revolution of time, and the microcosm, which proceeded from the three primordial elements, are exhibited by the three letters *Aleph* (א), *Mem* (מ) and *Shin* (ש.) Hence it is said that by means of these three letters—which, both in their phonetic and sacred character, represent the elements, inasmuch as א, as a gentle aspirate, and as the initial of אֵיִר *air*, symbolises THE AIR; מ, as a labial or mute, and as the initial of מַיִם *water*, represents THE WATER; whilst ש, as a sibilant, and as the last letter of שֵׁן *fire*, typifies THE FIRE (Chapter iii, *Mishna* iii)—God created

*In the World*—The Fire, Water, Air.

*In Man*—The Head, Body, Breast.

*In the Year*—Heat, Cold, Wet.

2. SEVEN DOUBLE CONSONANTS—BETH, GIMEL, DALETH, KAPH, PE, RESH, TAU שבע כפולות בנרדכפרת

The three dominions proceeding from the triad of the primordial elements which emanated from the unity continued to develop themselves still further. In the macrocosm were developed the seven planets, in time the seven days, and in the microcosm the seven sensuous faculties. These are represented by the seven double consonants of the alphabet. Hence it is said that by means of these seven letters, which are called double because they have a double pronunciation, being sometimes aspirated and sometimes not, according to their being with or without the *Dagesh*, God created—

*In the World*—Saturn, Jupiter, Mars, Sun, Venus, Mercury, Moon.

*In Man*—Wisdom, Riches, Dominion, Life, Favour, Progeny, Peace.

*In the Year*—Sabbath, Thursday, Tuesday, Sunday, Friday, Wednesday, Monday.

Owing to the opposite = double pronunciation of these seven letters, being hard and soft, they are also the symbols of the seven opposites (תמורות) in which human life moves, viz., wisdom and ignorance, riches and poverty, fruitfulness and barrenness, life and death, liberty and bondage, peace and war, beauty and deformity. Moreover, they correspond to the seven ends (שבע קצוות), above and below, east and west, north and south, and the Holy Place in the centre, which supports them; and with them God formed the seven heavens, the seven earths or countries, the seven weeks from the feast of Passover to Pentecost. (Chapter iii, *Mishna*, i-v; cap. iv, *Mishna*, i-iii.)

### 3. TWELVE SIMPLE CONSONANTS. שתיים עשר פשוטות.

The three dominions then respectively developed themselves into twelve parts, the macrocosm into the twelve signs of the Zodiac, time into twelve months, and the microcosm into twelve active organs. This is shown by the twelve simple consonants of the alphabet. Thus it is declared, that by means of the twelve letters, which are רוח חשי לן סעצק, God created the twelve signs of the Zodiac, viz. :—

*In the World*—Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricornus, Aquarius, Pisces.

*In Man*—The organs of Sight, Hearing, Smelling, Talking, Taste, Copulating, Dealing, Walking, Thinking, Anger, Laughter, Sleeping.

*In the Year*—The twelve months, viz., Nisan, Iyar, Sivan, Tamus, Ab, Elul, Tishri, Cheshvan, Kislev, Tebet, Shebat, Adar. (Comp. chapter v, *Mishna* i.)

The three dominions continued gradually to develop into that infinite variety of objects which is perceptible in each. This infinite variety, proceeding from the combination of a few, is propounded by means of the great diversity of combinations and permutations of which the whole alphabet is capable.

✓ These letters, small in number, being only twenty-two, by their power of *combination* and *transposition*, yield an endless number of words and figures, and thus become the types of all the varied phenomena in the creation.<sup>7</sup> "Just as the twenty-two letters yield two hundred and thirty-one types by combining *Aleph* (א) with all the letters, and all the letters with *Aleph*; *Beth* (ב), with all the letters, and all the letters with *Beth*, so all the formations and all that is spoken proceed from one name." (Chapter ii, *Mishna*, iv.) The table on the opposite page will shew how the two hundred and thirty-one types are obtained by the combination of the twenty-two letters.

The infinite variety in creation is still more strikingly exhibited by *permutations*, of which the Hebrew alphabet is capable, and through which an infinite variety of types is obtained. Hence the remark<sup>8</sup>—"Two letters form two houses, three letters build six houses, four build twenty-four, five build a hundred and twenty houses, six build seven hundred and twenty houses; and from thenceforward go out and think what the mouth cannot utter and the ear cannot hear." (Chapter iv, *Mishna* iv.) The following table will show how the letters, by permutation, will yield an infinite variety.

TABLE OF PERMUTATION.

a. Two letters	b. Three letters	c. Four letters			
אב 1.	אבג 1.	אבגד 19.	אבגד 18.	אבגד 7.	אבגד 1.
בא 2.	אבג 2.	אבגד 20.	אבגד 14.	אבגד 8.	אבגד 2.
	באג 8.	אבגד 21.	אבגד 15.	אבגד 9.	אבגד 8.
	בגא 4.	אבגד 22.	אבגד 16.	אבגד 10.	אבגד 4.
	גאב 5.	אבגד 23.	אבגד 17.	אבגד 11.	אבגד 5.
	גבא 6.	אבגד 24.	אבגד 18.	אבגד 12.	אבגד 6.
form one.	build six.	build twenty-four.			

7 כיצד שקלן המציר אלה עם כלם וכלם עם אלה, בית עם כלם וכלם עם בית וחזרת חלילה נמצא כל היצור וכל הדבור יוצא בשם אחד: פרק שני משנה ד'  
 8 שתי אותיות בנות שתי בתים שלושה בנות ששה בתים ארבעה בנות ארבע ועשרים בתים חמש בנות מאה ועשרים בתים שש בנות שבע מאות ועשרים בתים סבאן ואילך צא וחשוב מה שאין נסה יכולה לדבר ואין האוזן יכולה לשמוע: פרק ד' משנה ד'



In order to ascertain how often a certain number of letters can be transposed, the product of the preceding number must be multiplied with it. Thus—

Letter	2 ×	1 =	2
	3 ×	2 =	6
	4 ×	6 =	24
	5 ×	24 =	120
	6 ×	120 =	720
	7 ×	720 =	5040 and so on.

Accordingly, the material form of the spirit, represented by the twenty-two letters of the alphabet, is the form of all existing beings. Apart from the three dominions, the macrocosm, time, and microcosm, it is only the Infinite who can be perceived, and of whom this triad testifies; for which reason it is denominated "the three true witnesses."<sup>9</sup> Each of this triad, notwithstanding its multifariousness, constitutes a system, having its own centre and dominion.<sup>10</sup> Just as God is the centre of the universe, the heavenly dragon is the centre of the macrocosm; the foundation of the year is the revolution of the Zodiac; whilst the centre of the microcosm is the heart.<sup>11</sup> The first is like a king on his throne, the second is like a king living among his subjects, and the third is like a king in war. The reason why the heart of man is like a monarch in the midst of war is, that the twelve principal organs of the human body<sup>12</sup> "are arrayed against each other in battle array; three serve love, three hatred, three engender life, and three death. The three engendering love are the heart, the ears and the mouth; the three for enmity are the

9 עדים נאמנים עולם ששה נפש: פרק ו' משנה א'

10 אחד על גבי שלשה שלשה על גבי שבעה שבעה על גבי שנים עשר וכולן ארוקן זה בזה: פרק ו' משנה ג'

11 תלי בעולם כמלך על כסאו גלגל בשנה כמלך במדינה לב בגנש כמלך במלחמה

12 שנים עשר עומדים במלחמה שלשה אוהבים שלשה שנאים שלשה מדיים שלשה ממיתים שלשה אוהבים הלב והאזניים והפה שלשה שונאים חוכדי המרה והלשון ואל מלך נאמן מושל בכולן אחד על גבי שלשה שלשה על גבי שבעה שבעה על גבי שנים עשר וכולן ארוקן זה בזה: פרק ו' משנה ג'

liver, the gall and the tongue ; but God, the faithful King, rules over all the three systems. One [*i.e.*, God] is over the three, the three are over the seven, the seven over the twelve, and all are internally connected with each other." (Chapter vi, *Mishna* iii.) Thus the whole creation is one connected whole ; it is like a pyramid pointed at the top, which was its beginning, and exceedingly broad in its basis, which is its fullest development in all its multitudinous component parts. Throughout the whole are perceptible two opposites, with a reconciling medium. Thus, in the macrocosm, "the ethereal fire is above, the water below, and the air is between these hostile elements to reconcile them." (Chapter vi, *Mishna* i.) The same is the case in the heaven, earth and the atmosphere, as well as in the microcosm. But all the opposites in the cosmic, telluric and organic spheres, as well as in the moral world, are designed to balance each other. "God has placed in all things one to oppose the other ; good to oppose evil, good proceeding from good, and evil from evil ; good purifies evil, and evil purifies good ; good is in store for the good, and evil is reserved for the evil." (Chapter vi, *Mishna* ii.)

From this analysis of its contents it will be seen that *the Book Jetzira*, which the Kabbalists claim as their oldest document, has really nothing in common with the cardinal doctrines of the Kabbalah. There is not a single word in it bearing on *the En Soph*, the Archetypal Man, the speculations about the being and nature of the Deity, and *the Sephiroth*, which constitute the essence of the Kabbalah. Even its treatment of the ten digits, as part of the thirty-two ways of wisdom whereby God created the universe, which has undoubtedly suggested to the authors of the Kabbalah the idea of the *ten Sephiroth*, is quite different from the mode in which the Kabbalistic *Sephiroth* are depicted, as may be seen from a most cursory comparison of the respective diagrams which we have given to illustrate the plans of the two systems.

Besides the language of *the Book Jetzira* and the train of ideas therein enunciated, as the erudite Zunz rightly remarks, shew that this treatise belongs to *the Geonim* period, *i.e.*, about the ninth century of the Christian era, when it first became known.<sup>13</sup> The fabrication of this pseudograph was evidently suggested by the fact that the Talmud mentions some *treatises on the Creation*, denominated *יצירה* and *הלכות יצירה* (Sanhedrim 65 b ; 67 b) which "R. Chanina and R. Oshaja studied every Friday, whereby they produced a calf three years old and ate it;"<sup>14</sup> and whereby R. Joshua ben Chananja declared he could take fruit and instantly produce the trees which belong to them. (*Jerusalem Sanhedrim*, cap. vii. *ad finem*.<sup>15</sup>) Indeed Dr. Chwolson of Petersburg has shown in his treatise "*on the Remnants of the ancient Babylonian Literature in Arabic translations*," that the ancient Babylonians laid it down as a maxim that if a man were minutely and carefully to observe the process of nature, he would be able to imitate nature and produce sundry creatures. He would not only be able to create plants and metals, but even living beings. These artificial productions the Babylonians call *תולידאת* *productions* or *אבונאת* *formations*. Gutami, the author of the *Agricultura Nabat*, who lived about 1400 B.C., devoted a long chapter to the doctrine of artificial productions. The ancient sorcerer Ankebuta declares, in his work on artificial productions, that he created a man, and shows how he did it; but he confesses that the human being was without language and reason, that he could not eat, but simply opened and closed his eyes. This and many other fragments adds R—, from whose communication we quote, show that there were many works in Babylon which

13 *Die gottesdienstlichen Vorträge der Juden*. Berlin, 1882, p. 165, &c.

14 רב חנינא ורב אושעיא דכל מעלי שבחא חזו עסקי בהלכות יצירה ומיברי לחו עיגלא חילתא ואכלי לי: סנהדרין ס"ו ב'  
15 אמר ר' יוחנן בן חנניא יכל אנא על ידי ספר יצירה נסיב קרין ואבסודין ועבדלון אילין  
מבין וחדנן עבדן אילין ושבין:

treated on the artificial productions of plants, metals, and living beings, and that the *Book Jetzira*, mentioned in the Talmud, was most probably such a Babylonian document."<sup>16</sup>

| As the document on creation, mentioned in the Talmud, was lost in the course of time, the author of the Treatise which we have analysed tried to supply the loss, and hence not only called his production by the ancient name ספר יצירה *the Book of Creation*, but ascribed it to the patriarch Abraham. The perusal, however, of a single page of this book will convince any impartial reader that it has as little in common with the magic work mentioned in the Talmud or with the ancient Babylonian works which treat of human creations, as with the speculations about the being and nature of the Deity, *the En Soph* and *the Sephiroth*, which are the essence of the Kabbalah.<sup>17</sup>

Having shown that the *Book Jetzira*, claimed by the Kabbalists as their first and oldest code of doctrines, has no affinity with the real tenets of the Kabbalah, we have now to examine:—

<sup>16</sup> *Der Israelitische Volkslehrer*, vol. ix. Frankfort-on-the-Maine, 1859, p. 364, &c.

<sup>17</sup> For those who should wish to prosecute the study of the metaphysical *Book Jetzira*, we must mention that this Treatise was first published in a Latin translation by Postellus, Paris, 1552. It was then published in the original with five commentaries, viz., the spurious one of Saadia Gaon, one by Moses Nachmanides, one by Eleazer Worms, one by Abraham b. David, and one by Moses Botarel. Mantua, 1565. Another Latin version is given in *Jo. Pistorii artis cabalistical semptorum*, 1587, Tom. I, p. 869 *seq.* which is ascribed to Reuchlin and Paul Ricci; and a third Latin translation, with notes and the Hebrew text, was published by Rittangel, Amsterdam, 1662. The Book is also published with a German translation and notes, by John Friedrich v. Meyer, Leipzig, 1830. As useful helps to the understanding of this difficult Book we may mention The Kusari of R. Jehudah Ha-Levi, with Cassel's German version and learned annotations, Part iv. chap 25, p. 344. &c., Leipzig, 1853; Zunz, *Die gottesdienstlichen Vorträge der Juden* (Berlin, 1832), p. 165, &c.; Graetz, *Gnosticismus und Judenthum* (Krotoschin, 1846), p. 102, &c.; Jellinek, *Beiträge zur Geschichte der Kabbala*, Part i (Leipzig, 1852), p. 3, &c. Comp. also Wolf, *Bibliotheca Hebraea*, vol. i., p. 23, &c., vol. ii., p. 1196, vol. iii., p. 17, vol. iv., p. 753, &c.; *Philosophie der Geschichte*, vol. i., 2nd ed. (Münster, 1857), p. 63, &c.; Steinschneider, *Jewish Literature* (London, 1857), pp. 107, 302, &c.; and by the same author, *Catalogus Libr. Hebr. in Bibliotheca Bodleiana*, col. 552.

## II. *The Book Sohar.*

Before we enter into an examination concerning the date and authorship of this renowned code of the Kabbalistic doctrines, it will be necessary to describe the component parts of the *Sohar*. It seems that the proper *Sohar*, which is a commentary on the five Books of Moses, according to the division into Sabbatic sections, was originally called *מדרש דהי אור* *the Midrash or Exposition, Let there be Light*, from the words in Gen. i, 4; because the real Midrash begins with the exposition of this verse. The name *Sohar* (זוהר), i.e. *Light, Splendour*, was given to it afterwards, either because this document begins with the theme light, or because the word *Sohar* frequently occurs on the first page. It is referred to by the name of the *Book Sohar* (ספר הזוהר) in the component parts of the treatise itself. (Comp. *The Faithful Shepherd, Sohar*, iii, 153 b.) The *Sohar* is also called *Midrash of R. Simon b. Jochai* (מדרש של ר' שמעון בן יוחאי), because this Rabbi is its reputed author.<sup>18</sup> Interspersed throughout the *Sohar*, either as parts of the text with special titles, or in separate columns with distinct superscriptions, are the following dissertations, which we detail according to the order of the pages on which they respectively commence.

1. *Tosephtha* and *Mathanithan* (תוספתא and מתניתן), or *Small Additional Pieces* which are given in vol. i, 31 b; 32 b; 37 a; 54 b; 59 a; 60 b; 62; 98 b; 121 a; 122, 123 b; 147; 151 a; 152 a; 232, 233 b; 234 a; vol. ii, 4, 27 b;

18 The *Sohar* was first published by Da Padova and Jacob b. Naphtali, 3 vols. 4to, Mantua, 1558-1560, with an Introduction by Is. de Lattes; then again in Cremona, 1560, fol.; Lublin, 1623, fol.; then again edited by Rosenroth, with the variations from the works *Derech Emeth*, and with the explanation of the difficult words by Issachar Bär, an Index of all the passages of Scripture explained in the *Sohar*, and with an Introduction by Moses b. Uri Sheraga Bloch, Sulzbach, 1684, fol.; with an additional Index of matters, Amsterdam, 1714, 3 vols. 8vo; *ibid.* 1728; 1772, and 1805. The references in this Essay are to the last mentioned edition. It must, however, be remarked that most of the editions have the same paging. Comp. Steinschneider, *Catalogus Libr. Hebr. in Bibliotheca Bodleiana Col.*, 537-545; Fürst, *Bibliotheca Judaica*, iii, 329-335.

28 *a*; 68 *b*; 135 *b*; vol. iii, 29 *b*; 30 *a*; 54 *b*; 55. They briefly discuss, by way of supplement, the various topics of the Kabbalah, such as the *Sephiroth*, the emanation of the primordial light, &c., &c., and address themselves in apostrophes to the initiated in these mysteries, calling their attention to some doctrine or explanation.

2. *Hechaloth* (היכלות) or *The Mansions and Abodes* forming part of the text, vol. i, 38 *a*—45 *b*; vol. ii, 245 *a*—269 *a*. This portion of the *Sohar* describes the topographical structure of Paradise and Hell. The mansions or palaces, which are seven in number, were at first the habitation of the earthly Adam, but, after the fall of the protoplasts, were rearranged to be the abode of the beatified saints, who for this reason have the enjoyment both of this world and the world to come. The seven words in Gen. i, 2 are explained to describe these seven mansions. *Sohar*, i, 45 *a*, describes the seven Hells. In some Codices, however, this description of the Infernal Regions is given vol. ii, 202 *b*.

3. *Sithre Tora* (סתרי תורה), or *The Mysteries of the Pentateuch*, given in separate columns, and at the bottom of pages as follows. Vol. i, 74 *b*; 75 *a*; 76 *b*—77 *a*; 78 *a*—81 *b*; 97 *a*—102 *a*; 107 *b*—111 *a*; 146 *b*—149 *b*; 151 *a*; 152 *b*; 154 *b*—157 *b*; 161 *b*—162 *b*; 165; vol. ii, 146 *a*. It discusses the divers topics of the Kabbalah, such as the evolution of the *Sephiroth*, the emanation of the primordial light, &c., &c.

4. *Midrash Ha-Neelam* (מדרש הנעלם), or *The Hidden Midrash*, occupies parallel columns with the text in vol. i, 97 *a*—140 *a*, and endeavours more to explain passages of Scripture mystically, by way of *Remasim* (רמזים) and *Gematrias* (גמטריאות), and allegorically, than to propound the doctrines of the Kabbalah. Thus Abraham's prayer for Sodom and Gomorrah is explained as an intercession by the congregated souls of the saints in behalf of the sinners about to be

punished. (*Sohar*, i, 104 b.) Lot's two daughters are the two proclivities in man, good and evil. (*Ibid.* 110.) Besides this mystical interpretation wherein the Kabbalistic rules of exegesis are largely applied, the distinguishing feature of this portion of the *Sohar* is its discussion on the properties and destiny of the soul, which constitute an essential doctrine of the Kabbalah.

5. *Raja Mehemna* (רַעִיָּא מַחֲמֵנָא), or the *Faithful Shepherd*. This portion of the *Sohar* is given in the second and third volumes, in parallel columns with the text; and when it is too disproportioned for columns, is given at the bottom or in separate pages, as follows. Vol. ii, 25, 40, 59 b; 91 b—93 a; 134 b, 157 b—159 a; 187 b—188 a; vol. iii, 3 a—4 b; 20 a, 24 b, 27, 28 a—29 a; 33 a—34 a; 42 a, 44 a; 63; 67 b—68 a; 81 b—83 b; 85 b—86 a; 88 b—90 a; 92 b—93 a; 97 a—101 a; 103 b—104 a; 108 b—111 b; 121 b—126 a; 145 a—146 b; 152 b—153 b; 174 a—175 a; 178 b—179 b; 180 a, 215 a—239 a; 242 a—258 a; 263 a—264 a; 270 b—283 a. It derives its name from the fact that it records the discussions which Moses the Faithful Shepherd held in conference with the prophet Elias, and with R. Simon b. Jochai, the celebrated master of the Kabbalistic school, who is called *the Sacred Light* (בְּרַצְיָא קַדִּישָׁא). The chief object of this portion is to show the profound and allegorical import of the Mosaic commandments and prohibitions, as well as of the Rabbinic injunctions and religious practices which obtained in the course of time. At the dialogue which Moses the lawgiver holds with R. Simon b. Jochai the Kabbalistic lawgiver, not only is the prophet Elias present, but Abraham, Isaac, Jacob, Aaron, David, Solomon, and God himself make their appearance; the disciples of R. Simon are frequently in ecstasies when they hold converse with these illustrious patriarchs and kings of bygone days.

6. *Raze Derazin* (רַזֵּי דִרְזִין), or *the Secret of Secrets*,

*Original Secrets*, is given in vol. ii, 70<sup>a</sup>—75<sup>a</sup>, and is especially devoted to the physiognomy of the Kabbalah, and the connection of the soul with the body, based upon the advice of Jethro to his son-in-law Moses ואתה תחזה *and thou shalt look into the face.* (Exod. xviii, 21.)

7. *Saba Demishpatim* (סבא דמשפטים), or *the Discourse of the Aged in Mishpatim*, given in vol. ii, 94<sup>a</sup>—114<sup>a</sup>. The Aged is the prophet Elias, who holds converse with R. Simon b. Jochai about the doctrine of metempsychosis, and the discussion is attached to the Sabbatic section called משפטים, *i.e.*, Exod. xxi, 1—xxiv, 18, because the Kabbalah takes this word to signify *punishments of souls* (דינין), and finds its psychology in this section. So enraptured were the disciples when their master, the Sacred Light, discoursed with Moses on this subject, that they knew not whether it was day or night, or whether they were in the body or out of the body. (*Sohar*, ii, 105<sup>b</sup>.)

8. *Siphra Detzniutha* (ספרא דצניעותא), or *the Book of Secrets or Mysteries*, given in vol. ii, 176<sup>b</sup>—178<sup>b</sup>. It is divided into five sections (פרקים), and is chiefly occupied with discussing the questions involved in the creation, *e. gr.* the transition from the infinite to the finite, from absolute unity to multifariousness, from pure intelligence to matter, the double principle of masculine and feminine (אבא ואמא), expressed in the Tetragrammaton, the androgynous protoplast, the Demonology concealed in the letters of Scripture, as seen in Gen. vi, 2; Josh. ii, 1; 1 Kings, viii, 3, 16; the mysteries contained in Isa. i, 4, and the doctrine of the *Sephiroth* concealed in Gen. i; &c., as well as with showing the import of the letters יוד"ה composing the Tetragrammaton which were the principal agents in the creation. This portion of the *Sohar* has been translated into Latin by Rosenroth in the second volume of his *Kabbala Denudata*, Frankfort-on-the-Maine, 1684.

9. *Idra Rabba* (אִדְרָא רַבָּא), or the *Great Assembly* is given in vol. iii, 127 b—145 a, and derives its name from the fact that it purports to give the discourses which R. Simon b. Jochai delivered to his disciples who congregated around him in large numbers. Upon the summons of the Sacred Light, his disciples assembled to listen to the secrets and enigmas contained in the *Book of Mysteries*. Hence it is chiefly occupied with a description of the form and various members of the Deity, a disquisition on the relation of the Deity, in his two aspects of the *Aged* (עֵתִיק) and the *Young* (זַעִיר), to the creation and the universe, as well as on the diverse gigantic members of the Deity, such as the head, the beard, the eyes, the nose, &c., &c.; a dissertation on pneumatology, demonology, &c., &c. It concludes with telling us that three of the disciples died during these discussions. This portion too is given in a Latin translation in the second volume of Rosenroth's *Kabbala Denudata*.

10. *Januka* (יְנוּקָא), or the *Discourse of the Young Man*, is given in vol. iii, 186 a—192 a, and forms part of the text of the *Sohar* on the Sabbatic section called *Balak*, i.e. Numb. xxii, 2—xxv, 9. It derives its name from the fact that the discourses therein recorded were delivered by a young man, under the following circumstances:—R. Isaac and R. Jehudah, two of R. Simon b. Jochai's disciples, when on a journey, and passing through the village where the widow of R. Hamnuna Saba resided, visited this venerable woman. She asked her son, the *young hero* of this discourse, who had just returned from school, to go to these two Rabbins to receive their benediction; but the youth would not approach them because he recognised, from the smell of their garments, that they had omitted reciting on that day the prescribed declaration about the unity of the Deity (שְׁמַיָּה). When at meals this wonderful *Januka* gave them sundry discourses on the mysterious import of the washing of hands, based on

Exod. xxx, 20, on the grace recited at meals, on the *Shechinah*, on the angel who redeemed Jacob (Gen. xlviii, 16), &c., &c., which elicited the declaration from the Rabbins that "this youth is not the child of human parents" (דאי ינוקא לאו) (ב"נ הוא); and when hearing all this, R. Simon b. Jochai coincided in the opinion, that "this youth is of superhuman origin."

11. *Idra Suta* (אדרא וטא) or the *Small Assembly*, is given in vol. iii, 287 b—296 b, and derives its name from the fact that many of the disciples of R. Simon b. Jochai had died during the course of these Kabbalistic revelations, and that this portion of the *Sohar* contains the discourses which the Sacred Light delivered before his death to the small assembly of six pupils, who still survived and congregated to listen to the profound mysteries. It is to a great extent a recapitulation of the *Idra Rabba*, occupying itself with speculations about the *Sephiroth*, the Deity in his three aspects (שלת רישין), or principles which successively developed themselves from each other, viz.—the *En Soph* (אין סוף), or the Boundless in his absolute nature, the *Macroprosopon* (אריך אנפין), or the Boundless as manifested in the first emanation, and the *Microprosopon* (זעיר אנפין), the other nine emanations; the abortive creations, &c., and concludes with recording the death of Simon b. Jochai, the Sacred Light and the medium through whom God revealed the contents of the *Sohar*. The *Idra Suta* has been translated into Latin by Rosenroth in the second volume of his *Kabbala Denudata*.

From this brief analysis of its component parts and contents, it will be seen that the *Sohar* does not propound a regular Kabbalistic system, but promiscuously and reiteratedly dilates upon the diverse doctrines of this theosophy, as indicated in the forms and ornaments of the Hebrew alphabet, in the vowel points and accents, in the Divine names and the letters of which they are composed, in the narratives of the

Bible, and in the traditional and national stories. Hence the *Sohar* is more a collection of homilies or rhapsodies on Kabbalistic subjects than treatises on the Kabbalah. It is for this very reason that it became the treasury of the Kabbalah to the followers of this theosophy. Its diversity became its charm. The long conversations between its reputed author, R. Simon b. Jochai, and Moses, the great lawgiver and true shepherd, which it records; the short and pathetic prayers inserted therein; the religious anecdotes; the attractive spiritual explanations of scripture passages, appealing to the hearts and wants of men; the description of the Deity and of the *Sephiroth* under tender forms of human relationships, comprehensible to the finite mind, such as father, mother, primeval man, matron, bride, white head, the great and small face, the luminous mirror, the higher heaven, the higher earth, &c., which it gives on every page, made the *Sohar* a welcome text-book for the students of the Kabbalah, who, by its vivid descriptions of divine love, could lose themselves in rapturous embraces with the Deity.

Now, the *Sohar* pretends to be a revelation from God, communicated through R. Simon b. Jochai, who flourished about A.D. 70—110, to his select disciples. We are told that "when they assembled to compose the *Sohar*, permission was granted to the prophet Elias, to all the members of the celestial college, to all angels, spirits, and superior souls, to assist them; and the ten spiritual substances [*i.e.*, *Sephiroth*] were charged to disclose to them their profound mysteries, which were reserved for the days of the Messiah." On the approach of death, R. Simon b. Jochai assembled the small number of his disciples and friends, amongst whom was his son, R. Eleazar, to communicate to them his last doctrines,<sup>19</sup> "when

19 ויבא אסדרנא לכו רבי אבא יכתוב ורבי אלעזר ברי יצ' ושאר חבריה ירחשון בלביהו: וזרז חלק ג' דף רס"ב:

he ordered as follows—R. Aba shall write, R. Eleazar, my son, propound, and let my other associates quietly think about it.” (*Idra Suta, Sohar*, iii, 287 b.) It is upon the strength of these declarations, as well as upon the repeated representation of R. Simon b. Jochai as speaking and teaching throughout this production, that the *Sohar* is ascribed to this Rabbi on its very title-page, and that not only Jews, for centuries, but such distinguished Christian scholars as Lightfoot, Gill, Bartolucci, Pfeifer, Knorr von Rosenroth, Molitor, &c., have maintained this opinion. A careful examination, however, of the following internal and external evidence will show that this Thesaurus of the Kabbalah is the production of the thirteenth century.

1. The *Sohar* most fulsomely praises its own author, calls him the *Sacred Light* (בְּרִצְיָא קֳדִישָׁא), and exalts him above Moses, “the true Shepherd.”<sup>20</sup> “I testify by the sacred heavens and the sacred earth,” declares R. Simon b. Jochai, “that I now see what no son of man has seen since Moses ascended the second time on Mount Sinai, for I see my face shining as brilliantly as the light of the sun when it descends as a healing for the world; as it is written, ‘to you who fear my name shall shine the Sun of Righteousness with a healing in his wings.’ (Malachi, [iii, 20] iv, 2.) Yea, more, I know that my face is shining, but Moses did not know it nor understand it; for it is written (Exod. xxxiv, 29), ‘Moses wist not that the skin of his face shone.’” (*Sohar*, iii, 132 b; 144 a.) The disciples deify R. Simon in the *Sohar*, declaring that the verse, “all thy males shall appear before the Lord God” (Exod. xxiii, 17), refers to R. Simon b. Jochai,

20 אסודנה על שמיא עלאין דעלאין וארעה קדישה עליה דעלאה דאנא חמי השתא מה ולא חמא בר נש מיומה דסליק משה וזמנא חנינא לשורא דסיני דאנא חמינא אנפאי נהדין בנהורא דשכשא תקיפא דומין למיסק במסוותא לעלמא דכתיב וזרחא לכם יראי שמי שמש צדקה ומרעה בכנפיה: ועוד דאנא ידענא דאנפאי נהדין ומשה לא ידע ולא אסחכל דה”ד ומשה לא ידע כי קרן עור פניו: וזהו דלק ג” דף ק”ב ב’:

who is the Lord, and before whom all men must appear. (*Sohar*, ii, 88 a.)<sup>21</sup>

2. The *Sohar* quotes and mystically explains the Hebrew vowel points (i, 16 b ; 24 b ; ii, 116 a ; iii, 65 a), which were introduced for the first time by R. Mocha of Palestine, A.D. 570, to facilitate the reading of the Scriptures for his students.<sup>22</sup>

3. The *Sohar* (רעיא מהימנה) *Faithful Shepherd*, on section קדושים iii, 82 b), has literally borrowed two verses from the celebrated Hymn of Ibn Gebirol, who was born about A.D. 1021 and died in 1070. This Hymn which is entitled כתר מלכות *the Royal Diadem*, is a beautiful and pathetic composition, embodying the cosmic views of Aristotle, and forms part of the Jewish service for the evening preceding the Great Day of Atonement to the present day. The quotation in the *Sohar* from this Hymn is beyond the shadow of a doubt, as will be seen from the following comparison—

<i>Sohar.</i>	<i>Ibn Gebirol.</i>
ואשתארו [סדורא ושמשא] כנסא בלא נשמתא	אבל יש ארץ עליהם
דאיה ארץ עליהם מושך מאוריהם	מושך מאוריהם

It must be borne in mind that, though the *Sohar* is written in Aramaic, yet this quotation is in Hebrew, and in the *rhyme* of Ibn Gebirol.<sup>23</sup>

4. The *Sohar* (i, 18 b ; 23 a) quotes and explains the interchange, on the outside of the *Mezuza*,<sup>24</sup> of the words

21 כתוב יראה כל וכוך אל פני הארון ה' כמאן פני הארון ה' דא רשב"י דמאן דאיהו דכוורא מן דכרינא בני לאחזקאה קמיה: ודור חלק ב' דף לח א' :

22 Comp. Alexander's edition of Kitto's *Cyclopædia of Biblical Literature*, s.v. MOCHA.

23 Comp. Sachs, *Die religiöse Poesie der Juden in Spanien*, Berlin, 1845, p. 229, note 2.

24. For a description of the *Mezuza*, which consists of a piece of parchment, whereon is written Deut. vi, 4-9 ; xi, 13-21, put into a reed or hollow cylinder, and affixed to the right hand door-post of every door in the houses of the Jews, see Alexander's edition of Kitto's *Cyclopædia of Biblical Literature*, s.v. MEZUZA.

(יהוה אלודע יהוה) *Jehovah our God is Jehovah* for (כוז) (במוכזו כוז) *Kuzu Bemuchzaz Kuzu*, by substituting for each letter its immediate predecessor in the alphabet, which was transplanted from France into Spain in the thirteenth century.<sup>25</sup>

5. The *Sohar* (iii, 232 b) uses the expression *Esnoga*, which is a Portuguese corruption of synagogue, and explains it in a Kabbalistic manner as a compound of two Hebrew words, i.e., *Es* = שן and *Noga* = נורה brilliant light.<sup>26</sup>

6. The *Sohar* (ii, 32 a) mentions the Crusades, the momentary taking of Jerusalem by the Crusaders from the Infidels, and the retaking of it by the Saracens.<sup>27</sup> "Woe to the time," it says, "wherein Ishmael saw the world, and received the sign of circumcision! What did the Holy One, blessed be his name? He excluded the descendants of Ishmael, i.e., the Mahommedans, from the congregation in heaven, but gave them a portion on earth in the Holy Land, because of the sign of the covenant which they possess. The Mahommedans are, therefore, destined to rule for a time over the Holy Land; and they will prevent the Israelites from returning to it, till the merit of the Mahommedans is accomplished. At that time the descendants of Ishmael will be the occasion of terrible wars in the world, and the children of Edom, i.e., the Christians, will gather together against them and do battle with them, some at sea and some on land, and some in the neighbourhood of Jerusalem, and the victory will now

25. Comp. Nissen, in the collection of various Hebrew Dissertations, entitled *ציר*, edited by Jost and Creizenach, vol. ii, Frankfort-on-the-Maine, 1842-43, p. 161, &c.

26 ושיכנתם נוגה ונוגה לאש ומוכזא קר לבי כנישתא אש נוגה: וחדר חלק נ' דף רס' א'  
27 ווי על ההוא זמנא דאחליד שמשאל בעלמא ואחגורי מה עבר קב"ה ארדוק להו לבני ישמעאל מדבקורא דלעילא ויהב להו חולקא לתרא בארשא קדישא בגין ההוא גזיר דבחון חמינין בנ ישמעאל למישלם בארשא קדישא כד אידי ריקניא מכלא זמנ' סגי כמה דגזיר דלחון ברקניא בלא שלמו: ואינון יעבדון דלחון לבנ' לאתבא לדוכתייהו עד דישחלוהו ההוא זמנא דבני ישמעאל: חמינין בני ישמעאל לאתשרה קרינן חקסין בעלמא ולאחכנשא בני אדום עליהו ויהצרון קרבא בהו דוד על ימא דוד על יבשא דוד סמך לירשלים ושלמון אלן באלן וארשא קדישא לא יחמסר לבני אדום: וחדר חלק ב' דף לב א'

be on the one side and then on the other, but the Holy Land will not remain in the hands of the Christians."

7. The *Sohar* records events which transpired A.D. 1264. Thus on Numb. xxiv, 17, which the *Sohar* explains as referring to the time preceding the advent of Messiah, it remarks,<sup>28</sup> "the Holy One, blessed be he, is prepared to rebuild Jerusalem. Previous to the rebuilding thereof he will cause to appear, a wonderful and splendid star, which will shine seventy days. It will first be seen on Friday, Elul = July 25th, and disappear on Saturday or Friday evening at the end of seventy days. On the day preceding [its disappearance, i.e. October 2nd] when it will still be seen in the city of Rome, on that self-same day three high walls of that city of Rome and the great palace will fall, and the pontiff ruler of the city will die." (*Sohar* iii, 212 b.) Now the comet here spoken of appeared in Rome, July 25th, 1264, and was visible till October 2nd, which are literally the seventy days mentioned in the *Sohar*. Moreover, July 25th, when the comet first appeared, actually happened on a Friday; on the day of its disappearance, October 2nd, the sovereign pontiff of Rome, Urban IV, died at Perugia, when it was believed that the appearance of the comet was the omen of his death, and the great and strong palace (**היכלא רברבא**) Vincimonto, fell on the self-same day, October 2nd, into the hands of the insurrectionists.<sup>29</sup>

8. The *Sohar*, in assigning a reason why its contents were not revealed before, says that the "time in which R. Simon ben Jochai lived was peculiarly worthy and glorious, and that it is near the advent of the Messiah," for which cause this

28 חנן זמן קב"ה למבני ירושלים ולאחזאה דוד ככבא קבישא מנצחא בע' רחשין ובע' זקן דהרין מניה באמצעות רקיעא וישתאבון ביה ע' ככבין אחרנין ויהא נהיר ולהיש ע' יומין וביומא שתיחאה יתחוי בכה יומין לירחא שתיחאה [שביעאה] ויחכניש ביומה שביעאה לסוף ע' יומין יומא קדמאה יתחוי בקרתא דרומי דהוא יומא ינפולין ג' שורין עלאין מחדהיא קרתא דרומי היכלא רברבא ינפול ושלשא דהוא קרתא ימות; ודור חלק ג' דף ר"ב ב'.

29. Comp. Beer, in Frankel's *Monatschrift für Geschichte und Wissenschaft des Judenthums*, vol. v, Leipzig, 1856, p. 158-160.

revelation was reserved till the days of R. Simon, to be communicated through him. Yet, speaking elsewhere of the advent of the Messiah, the *Sohar*, instead of placing it in the second century when this Rabbi lived, forgets itself and says<sup>30</sup>—"When the sixtieth or the sixty-sixth year shall have passed over the threshold of the sixth millenium [A.M. 5060-66 = A.D. 1300—1306] the Messiah will appear" (*Sohar* i, 116 a, 117 b, Comp. also iii, 252 a); thus showing that the author lived in the thirteenth century of the Christian era. In perfect harmony with this is the fact that:—

9. The doctrine of the *En Soph*, and the *Sephiroth*, as well as the metempsychosisian retribution were not known before the thirteenth century.

10. The very existence of the *Sohar*, according to the confession of the staunch Kabbalist, Jehudah Chajoth (flourished 1500), was unknown to such distinguished Kabbalists as Nachmanides (1195-1270) and Ben-Adereth (1235-1310); the first who mentions it is Todros Abulafia (1234-1306).

11. Isaac of Akko (flourished 1290) fully confirms all that we have hitherto adduced from the import of this book, by his testimony that "the *Sohar* was put into the world from the head of a Spaniard." To the same effect is the testimony of Joseph Ibn Wakkar, who in speaking of later books which may be relied upon, recommends only those of Moses Nachmanides and Todros Abulafia; "but," he adds, "the *Sohar* is full of errors, and one must take care not to be misled by them." Upon which, the erudite Steinschneider rightly remarks,<sup>31</sup> "this is an impartial and indirect testimony that the *Sohar* was recognised scarcely fifty years after its

30 וכד ייתי אלף שתימאה דאדור דא דואר כדן וא"ו יוקם לה"א בומנא שית ומנן עשר שיחן  
נשכ כדן שלימו וא"ו עשר ומנן וא"ו שית ומנן עשרי (דוא"ו) וא"ו סלקא (בעשר) ב"ו וא"ו ונחמא  
בד"א אשתלים וא"ו גו עשר שית ומנן כדן דור שיתן לאקמא בעשרא: ודור דלק א' דא ק"ו  
ב' ק"ו ב'

31 Steinschneider, in Ersch und Gruber's *Encyklopädie*, section II, vol. xxxi, p. 101; and *Jewish Literature*, Longman, 1857, p. 113.

appearing as one of the later works, and was not attributed to Simon ben Jochai."

12. That Moses de Leon, who first published and sold the *Sohar*, as the production of R. Simon b. Jochai, was himself the author of it, was admitted by his own wife and daughter, as will be seen from the following account in the *Book Juchassin*, (p.p. 88, 89, 95, ed. Filipowski, London, 1857), which we give in an abridged form.<sup>32</sup> When Isaac of Akko, who escaped the massacre after the capture of this city (A.D. 1291), came to Spain and there saw the *Sohar*, he was anxious to ascertain whether it was genuine, since it pretended to be a Palestine production, and he, though born and brought up in the Holy Land, in constant intercourse with the disciples of the celebrated Kabbalist, Nachmanides, had never heard a syllable about this marvellous work. Now, Moses de Leon, whom he met in Valladolid, declared to him on a most solemn oath that he had at Avila an ancient exemplar, which was the very autograph of R. Simon ben Jochai, and offered to submit it to him to be tested. In the meantime, however, Moses de Leon was taken ill on his journey home, and died at Arevalo, A.D. 1305. But two

82 בחדש אדר כתב ר' יצחק דמן עכו כי עכו נחרבה בשנת חמשים לפרש ושנחרתו חסדי ישראל שם בר' מיהות ב"ד, ובשנת ס"ה היה זה ר' יצחק דמן עכו בנבארה באישאליה וניצל מעכו ובשנת ס"ה עצמה בא לשפליה ומצאתי בספר דברי הימים שלו ר"ל מר' יצחק דמן עכו הוא שעשה ספר קבלה בשנת חמלאך ונחריבה בזמנו עכו ונשבו כולם בזמן בן בנו של הרמב"ן ובזמן בן ר' דוד בן אברהם בן הרמב"ם ו"ל. והוא הלך לספר לחקור כיצד נמצא בזמנו מפר החדש אשר עשה ר' שמעון ור' אלעזר בנו במערה אשרי הוסיף לאמחתו, באורו יראו אור: ואמר לאמחתו: מפני שדייק מקצת אשר ויף. ואמר שקבל כי מה שנמצא בלשון ירושלמי האמן כי הם דברי ר' שמעון. ואם תראה בלשון קדש האמן כי אינם דבריו רק דברי המזויף מפני שהספר האמתי הוא בלשון ירושלמי כלו ח"ל ומפני שהראתי כי דבריו מופלאים ישאבו ממקור העליון המעיין המשפיע בלתי מקבלת בשכמל"ו ודפתי אחריי ואשאלה את התלמידים הנמצאים בידם דברים גדולים מכמו מאין בא להם סודות מופלאים מקובלים מפה אל פה אשר לא נחוו ליכתב וכמצאו שם מבוררים לכל קורא ספר. ולא מצאתי חשבוניותם על שאלתי זאת מכוונות. זה אומר בכה וזה אומר בכה: שמעתי אומרים לי על שאלתי כי הרב הנאמן הרמב"ן ו"ל שלח אותי מארץ ישראל לקסלוניא לבנו חביבו הרחל ארץ ארגון ו"א לאלקנשי ונשל ביד החכם ר' משה די ליאון הוא שאומרים עליו ר' משה דיוראל הגאון. ו"א שמעולם לא חבר רשב"י ספר זה, אבל ר' משה זה היה יודע שם הכותב ובכחו וכתבו ר' משה זה דברים נפלאים אלה, ולמכנן יקח בהם מחיר גדול כסף וזהו רב חולה דבריו באשלי רבירי ואמר מתוך הספר אשר חבר רשב"י ור' אלעזר בנו חבירי אני מעתיק להם דברים אלה. ואני בבואי ספרדה ואבא אל עיר ואלדוליד אשר המלך (שם) ואמצא שם לר' משה זה ואמצא חן בעיניו וידבר עמי וידר לי וישבע לאמר: כה יעשה לי אלקים וכה יוסף אם לא הספר הקדמון אשר חבר רשב"י אשר הוא היום בבתי במדינת ישיבלי היא אוילה בבואך אלי שם אראך. ויהי אחר הדברים האלה נספר ממני וילך ר' משה זה אל עיר

distinguished men of Avila, David Rafen and Joseph de Avila, who were determined to sift the matter, ascertained the falsehood of this story from the widow and daughter of Moses de Leon. Being a rich man and knowing that Moses de Leon left his family without means, Joseph de Avila promised that if she would give him the original MS. of the *Sohar* from which her husband made the copies, his son should marry her daughter, and that he would give them a handsome dowry. Whereupon the widow and daughter declared, that they did not possess any such MS., that Moses de Leon never had it, but that he composed the *Sohar* from his own head, and wrote it with his own hand. Moreover, the widow candidly confessed that she had frequently asked her husband why he published the production of his own intellect under another man's name, and that he told her that if he were to publish it under his own name nobody would buy it, whereas under the name of R. Simon b. Jochai it yielded him a large revenue. This account is confirmed in a most remarkable manner by the fact that—

ארבלא לשוב אל ביתו לאוילא ודחלא בארבלא רימת שמי' וכשמי' הבשורה היטב חרה לי עד מות ואצא ואשים לדרך פעמי ואבא אל אוילא ומצאתי שם חכם גדול וזקן ושמו ר' דוד דאמן קורפו ואמצאה חן בעיניו ואשבעהו לאמר: הנהבירו לו סדרות ספר הוחרר שבני אדם נחלקים זה אומר בבלה וזה אומר בבבלה ר' משה עצמו נדר לי (?) לתת/ אלי ולא הספיק עד שמת ואיני יודע על מי אסמך ולדברי מי אאמין/ ויאמר דע באמת כי נחברר לי בלא ספק שמעולם לא בא לידי של ר' משה זה/ ואין בעולם ספר וזהו זה רק היה ר' משה בעל שם הכותב ובכחו כתב כל מה שכתב בספר הזה/ ועתה שמע נא באוזה דרך נחברר לי: דע כי ר' משה זה היה מסור גדול ומוציא בעין יפה ממונו עד שהיום הזה ביתו מלא כסף וזהב שנחנו לו העשירים המבינים בסודות גדולים אלא (אלו) אשר יתן להם כתובים בשם הכותב וכדור נחרוקן כלו עד שעזב אשתו ובתו הנה שדמות שריות ברעב ובצמא ובחוסר כל/ וכששמענו שמת בעיר ארבלו ואקום ואלך אל העשיר הגדול אשר בעיר הזאת הנקרא ר' יוסף די אוילא ואומר לו: עתה הגיע העת אשר תוכה לספר הוחרר אשר לא יערכנו זהב וזכוכית אם תעשה את אשר איעצך/ ועצתי היא זאת: שיקרא ר' יוסף זה לאשתו ואמר לה קדי נא מנחה נאה ביד שפתוך ושלחי אותה לאשת ר' משה ותעש כן/ ויהי ממחרת ויאמר עוד לה לבי נא ביתה אשר ר' משה ואמרי לה דעי כי רצוני הוא להשיא את בתך לבני ואלך לא יחזר לום לאלל ובגד ללבוש לי ימך ואין אני מבקשת ממך דבר בעולם רק ספר הוחרר אשר היה אישך מעתיק ממנו ונתון לבני אדם דברים אלה תאמרי לה לבד ולבתה לבד וחשמיני את דבריהם אשר יענוכה ונראה הידיו ממונים אם לא/ ותלך ותעש כן/ ותען אשתו ר' משה ותשבע לאשת ר' יוסף לאמר כה יעשה לי אלקים וכה יוסף אם מעולם ספר זה היה עם אישי אבל מראשו ולבו מרעתי ושללו כתב כל מה שכתב/ ואומרו לו בראותי אותו כותב מבגדי דבר לפני: מדוע תאמר שאתה מעתיק מספר ואחא אין לך ספר רק מראשך אתה כותב? הלא נאה לך לאמר כי משכך אתה כותב ויותר יזהב כבוד לך/ ויען אלי ויאמר: אלו אודיע להם סודי זה שמכשילי אני כותב לא ישגוהו דברי ולא יתנו בעבורם פרשה כי יאמרו כי מלבו הוא ברה אותם/ אבל עתה כאשר ישמעו שמתך ספר הוחרר אשר חבר רשב" ברוח הקדש אני מעתיקם יקנו אותם בדמים קרים מאד עינך דאחא:

13. The *Sohar* contains whole passages which Moses de Leon translated into Aramaic, from his other works, as the learned Jellinek has demonstratively proved. To transfer these passages here would occupy too much of our space. We must, therefore, refer the reader to the monograph itself,<sup>33</sup> and shall only give one example, which the erudite historian, Dr. Graetz,<sup>34</sup> has pointed out. In his *Sephar Ha-Rimon* (ספר הרימון), which he composed A.D. 1827, and which is a Kabbalistic explanation of the Mosaic precepts, Moses de Leon endeavours to account for the non-occurrence of the Tetragrammaton in the history of the hexahemeron, whilst it does occur immediately afterwards, by submitting that as the earthly world is finite and perishable, this divine name, which denotes eternity, could not be used at the creation thereof; for if it had been created under its influence, the world would have been as imperishable as this name. In corroboration of this, Moses de Leon quotes the passage (לכו חזו מפעלות) (אלהים אשר שם שמות בארץ) *Come, behold the works of Elohim, what perishableness he made in the earth* (Ps. xlii, 8), showing that שמות *destruction, perishableness*, is consonant with the name אלהים. In looking at the original, it will be seen that the text has יהוה and not אלהים, and that Moses de Leon, by a slip of memory, confounded this passage with (לכו וראו מפעלות אלהים) *Come and see the works of Elohim* (Ps. xlii, 5). Now, the whole explanation and the same blunder are transferred into the *Sohar*. The commentators on this treasury of the Kabbalah, not knowing the cause of this blunder, express their great surprise that the *Sohar* should explain a mis-quotation. We subjoin the two passages in parallel columns.

<sup>33</sup> *Moses ben Schem-Tob de Leon, und sein Verhältniss zum Sohar*, von Adolph Jellinek, Leipzig, 1851, p. 21-38. Jellinek also gives additional information on this subject in his other contributions to the Kabbalah which will be found mentioned in the third part of this Essay.

<sup>34</sup> Comp. Graetz, *Geschichte der Juden*, vol. vii, Leipzig, 1863, p. 498, where other facts are given, proving that Moses de Leon is the author of the *Sohar*.

ר' יהודה מתח לכו חזו מסעלות אלהים אשר  
שם שמות ונו' האי קרא אוקמה ואחמר . . .  
שמות דאי דמא שמא גרים לכלא (לשון שמשון)  
דאלו דזו מסעלות י' ה' ו' ה' שם קיום בארץ אבל  
בגין דהוון מסעלות שמא דאלהים שם שמות  
בארץ: אמר ליה ר' חייא ונו'

אמנם כי יש מירוש אחד להיות שם המיוחד  
נזכר באחרונה לקיים על ההויות אמר דחיל לכו  
ראו מסעלות וכו' מפני שהיו מסעלות אלהים  
שם שמות . . . שאלמלא היו מסעלות  
י' ה' ו' ה' שם קיום בארץ: והענין בזה על כל  
המסעלות זה העולם השפל כלם נפסדים מפני  
שכל ההויות בשם זה שאלמלא יהיו בשם  
המיוחד כלם יהיו קיימים בקיומם וכו'

It is for these and many other reasons that the *Sohar* is now regarded by Steinschneider, Beer, Jellinek, Graetz, &c., as a pseudograph of the thirteenth century. That Moses de Leon should have palmed the *Sohar* upon Simon b. Jochai was nothing remarkable, since this Rabbi is regarded by tradition as the embodiment of mysticism. No better hero could be selected for the *Sohar* than R. Simon, of whom the Talmud gives us the following account: "Once upon a time, R. Jehudah, R. Jose, and R. Simon sat together, and R. Jehudah b. Gerim sat by them. R. Jehudah then began and said—How beautiful are the works of this nation (*i.e.*, the Romans)! they have erected market-places, they have erected bridges, and they have erected baths! R. Jose was quiet, but R. Simon b. Jochai answered and said: what they have built they have built for no one except for their own use, they made markets to allure prostitutes, they made baths to gratify themselves therein, and bridges to get tolls by them. Jehudah b. Gerim repeated this, and the emperor's government got to hear it, who passed the following decree: Jehudah, who exalted, is to be exalted; Jose, who was silent, is to be banished to Zipporis; and Simon, who spoke evil, is to be killed. He (*i.e.*, R. Simon) at once concealed himself with his son, in the place of study, whither his wife daily brought them a loaf and a flask of water; but as the rigour of the decree increased, he said to his son: women are weak-minded—if she is tortured she may betray us. Hence, they left, and betook themselves into a deep cavern, where by a miracle

a crab-tree and a well were created for their subsistence. He and his son sat in the sand up to their necks all the day studying the Law. They spent twelve long years in this cavern; when Elias the prophet came and stood at the entrance of the cavern, and called out—Who will inform the son of Jochai that the emperor is dead, and that the decree is commuted? They came out and saw the people tilling and sowing." (*Sabbath*, 33 a. Comp. also, *Jerusalem Shebi'ith*, ix, 1; *Bereshith Rabba*, cap. lxxix; *Midrash Koheleth*, x, 8; *Midrash Esther*, i, 9.) This is the secret why the story that R. Simon b. Jochai composed the *Sohar* during his twelve years' residence in the cavern obtained credence among the followers of the Kabbalah.

v.

### III. *The Commentary on the Ten Sephiroth.*

It is this commentary to which we must look, as the most ancient document embodying the doctrines of the Kabbalah. The author of this commentary, R. Azariel b. Menachem, was born in Valladolid, about 1160. He distinguished himself as a philosopher, Kabbalist, Talmudist, and commentator, as his works indicate; he was a pupil of Isaac the Blind, who is regarded as the originator of the Kabbalah, and master of the celebrated R. Moses Nachmanides, who is also a distinguished pillar of Kabbalism. R. Azariel died A.D. 1238, at the advanced age of seventy-eight years. "The Commentary on the Ten Sephiroth" is in questions and answers,<sup>20</sup> and the following is the lucid analysis of it as given by the erudite Jellinek, according to Spinoza's form of Ethics.

20. שאלה ותשובה עשר ספירות על דרך שאלה ותשובה. *Commentary on the Ten Sephiroth, by way of Questions and Answers.* This commentary was first known through the Kabbalistic works of Meier Ibn Gabbai, entitled *דרך אמונה*, *The Path of Faith*, printed in Padua, 1563, and *עבודת הקדש*, *The Service of Holiness*, also called *מראה אלהים*, *The Vision of the Lord*, first printed in Mantua, 1545; then Venice, 1567, and Cracow, 1578. It was then published in Gabriel Warschawer's volume entitled *A Collection of Kabbalistic Treatises* (ספר לקושים בקבלה), Warsaw, 1798; and has recently been published in Berlin, 1850. It is to this Berlin edition that the references in this Essay are made.

1. DEFINITION.—By the Being who is the cause and governor of all things, I understand the *En Soph*, *i.e.*, a Being infinite, boundless, absolutely identical with itself, united in itself, without attributes, will, intention, desire, thought, word or deed. (Answers 2 and 4.)

2. DEFINITION.—By *Sephiroth* I understand the potencies which emanated from the absolute *En Soph*, all entities limited by quantity, which like the will, without changing its nature, wills diverse objects that are the possibilities of multifarious things. (Answers 3 and 9.)

i. PROPOSITION.—The primary cause and governor of the world is the *En Soph*, who is both immanent and transcendent. (Answer 1.) ✓

(a) PROOF.—Each effect has a cause, and every thing which has order and design has a governor. (Answer 1.)

(b) PROOF.—Every thing visible has a limit, what is limited is finite, what is finite is not absolutely identical; the primary cause of the world is invisible, therefore unlimited, infinite, absolutely identical, *i.e.*, he is the *En Soph*. (Answer 2.)

(c) PROOF.—As the primary cause of the world is infinite, nothing can exist *without* (EXTRA) him; hence he is immanent. (*Ibid.*)

*Scholion.*—As the *En Soph* is invisible and exalted, it is the root of both faith and unbelief. (*Ibid.*)

ii. PROPOSITION.—The *Sephiroth* are the medium between the absolute *En Soph* and the real world.

PROOF.—As the real world is limited and not perfect, it cannot directly proceed from the *En Soph*, still the *En Soph* must exercise his influence over it, or his perfection would cease. Hence the *Sephiroth*, which, in their intimate connection with the *En Soph*, are perfect, and in their severance are imperfect, must be the medium. (Answer 3.)

*Scholion.*—Since all existing things originated by means of

the *Sephiroth*, there are a higher, a middle, and a lower degree of the real world. (*Vide infra*, Proposition 6.)

iii. PROPOSITION.—There are ten intermediate *Sephiroth*.

PROOF.—All bodies have three dimensions, each of which repeats the other ( $3 \times 3$ ); and by adding thereunto space generally, we obtain the *number ten*. As the *Sephiroth* are the potencies of all that is limited they must be *ten*. (Answer 4.)

(a) *Scholion*.—The number ten does not contradict the absolute unity of the *En Soph*, as *one* is the basis of all numbers, plurality proceeds from unity, the germs contain the development, just as fire, flame, sparks and colour have *one* basis, though they differ from one another. (Answer 6.)

(b) *Scholion*.—Just as cogitation or thought, and even the mind as a cogitated object, is limited, becomes concrete and has a measure, although *pure thought* proceeds from the *En Soph*; so limit, measure, and concretion are the attributes of the *Sephiroth*. (Answer 7.)

4. PROPOSITION.—The *Sephiroth* are emanations and not creations.

1. PROOF.—As the absolute *En Soph* is perfect, the *Sephiroth* proceeding therefrom must also be perfect; hence they are not created. (Answer 5.)

2. PROOF.—All created objects diminish by abstraction; the *Sephiroth* do not lessen, as their activity never ceases; hence they cannot be created. (*Ibid.*)

*Scholion*.—The first *Sephira* was in the *En Soph* as a power before it became a reality; then the second *Sephira* emanated as a potency for the intellectual world, and afterwards the other *Sephiroth* emanated for the sensuous and material world. This, however, does not imply a *prius* and *posterius* or a gradation in the *En Soph*, but just as a light whose kindled lights which shine sooner and later and variously, so it embraces all in a unity. (Answer 8.)

5. PROPOSITION.—The *Sephira* are both active and passive (מקביל ומתקבל).

PROOF.—As the *Sephira* do not set aside the unity of the *En Soph*, each one of them must receive from its predecessor, and impart to its successor—i.e., be receptive and imparting. (Answer 9.)

6. PROPOSITION.—The first *Sephira* is called *Inscrutable Height* (רום מעלה); the second, *Wisdom* (חכמה); the third, *Intelligence* (בינה); the fourth, *Love* (חסד); the fifth, *Justice* (פחד); the sixth, *Beauty* (תפארת); the seventh, *Firmness* (נצח); the eighth, *Splendour* (הוד); the ninth, *the Righteous is the Foundation of the World* (צדיק יסוד עולם); and the tenth, *Righteousness* (צדק).

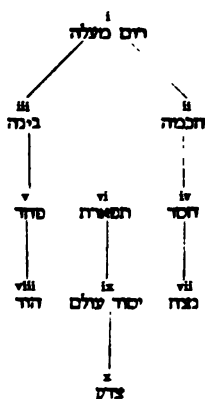
(a) *Scholion*.—The first three *Sephira* form the world of thought; the second three the world of soul; and the four last the world of body—thus corresponding to the intellectual, moral, and material worlds. (Answer 10.)

(b) *Scholion*.—The first *Sephira* stands in relation to the soul, inasmuch as it is called a *unity* (יחידה); the second, inasmuch as it is denominated *living* (חיה); the third, inasmuch as it is termed *spirit* (רוח); the fourth, inasmuch as it is called *vital principle* (נפש); the fifth, inasmuch as it is denominated *soul* (נשמה); the sixth operates on the blood, the seventh on the bones, the eighth on the veins, the ninth on the flesh, and the tenth on the skin. (*Ibid.*)

(c) *Scholion*.—The first *Sephira* is like the concealed light, the second like sky-blue, the third like yellow, the fourth like white, the fifth like red, the sixth like white-red, the seventh like whitish-red, the eighth like reddish-white, the ninth like white-red-whitish-red-reddish-white, and the tenth is like the light reflecting all colours.<sup>21</sup>

<sup>21</sup> The above analysis is taken from Dr. Jellinek's *Beiträge zur Geschichte der Kabbalah. Erstes Heft. Leipzig, 1854*. This erudite scholar also gives some additional information on R. Azariel in the second part of his *Beiträge zur Geschichte der Kabbalah*, p. 32, &c. Leipzig, 1852.

The gradation of the *Sephiroth* is as follows—



✓ For this date of the Kabbalah (*i.e.*, 1150-1190) we have the testimony of some of the earliest and most intelligent Kabbalists themselves. Thus R. Joseph b. Abraham Gikatilla (born about 1247, and died 1307) most distinctly tells us that R. Isaac the Blind, of Posquiers (flour. circa 1190-1210), the teacher of R. Azariel, was the first who taught the doctrines of this theosophy.<sup>22</sup> R. Bechja b. Asher, another Kabbalist who lived soon after this system was made known, in his commentary on the Pentateuch, which he composed A.D. 1291, styles R. Isaac the Blind, as *the Father of the Kabbalah*.<sup>23</sup> ✓ Shem Tob b. Abraham Ibn Gaon (born 1283), another ancient Kabbalist, in attempting to trace a Kabbalistic explanation of a passage in the Bible to its fountain head, goes back to R. Isaac as the primary source, and connects him immediately with the prophet Elias, who is said to have revealed the

22 וקבלה שבידינו על היות אלו החכמים משלשלת קבלה מעשה מרכבה מסיני עד עמוד הסיני  
 [שנמשקיש] חוסיד ר' יצחק סני נחור בן חקדוש ר' אברהם שבנקרש [שנמשקיש]  
 This passage from Gikatilla's ספר הנפש והחכמה which is contained in Moses de Leon's פירוש החזקוני is quoted by Graetz, *Geschichte der Juden*, vol. vii, p. 444.

23 וקבלה שבידינו על היות אלו החכמים משלשלת קבלה מעשה מרכבה מסיני עד עמוד הסיני  
 28 וקבלה שבידינו על היות אלו החכמים משלשלת קבלה מעשה מרכבה מסיני עד עמוד הסיני  
 1811. Comp. Commentary on Pericope ed. Lemberg, 1811.

mysteries of this theosophy to this corypheus of the Kabbalah.<sup>24</sup> Whilst the author of the Kabbalistic work entitled *מערכת מלכות* the contemporary of R. Solomon b. Abraham b. Adereth (flour. A.D. 1260), frankly declares that "the doctrine of the *En Soph* and the *ten Sephiroth* is neither to be found in the Law, Prophets, or Hagiographa, nor in the writings of the Rabbins of blessed memory, but rests solely upon signs which are scarcely perceptible."<sup>25</sup>

It has indeed been supposed that covert allusions to the *Sephiroth* are to be found in the Talmud. If this could be proved, the date of the Kabbalah would have to be altered from the twelfth to the second or third century after Christ. An examination, however, of the passage in question, upon which this opinion is based, will show how thoroughly fanciful it is. The passage is as follows—"The Rabbins propound, At first the name of twelve letters was communicated to every one, but when the profane multiplied, it was only communicated to the most pious of the priests, and these pre-eminently pious priests absorbed it from their fellow priests in the chant. It is recorded that R. Tarphon said, I once went up the orchestra in the Temple after my maternal uncle, and, bending forward my ear to a priest, I heard how he absorbed it from his fellow priests in the chant. R. Jehudah said in the name of Rab, the divine name of forty-two letters is only communicated to such as are pious, not easily provoked, not given to drinking, and are not self opinionated. He who

<sup>24</sup> In his Super-Commentary on Nachmanides' Treatise on Secrets, (סדרה) יושלח Shem Tob Ibn Gaon on Pericope (ד"ר) מן remarks as follows ע"י אליו (ראב"ד) יצחק בן הרב 'איש מפי איש עד ר' יצחק בן הרב חננאל In another Kabbalistic work, entitled which he completed at Tafet in 1358, he says—רבי עזרא רבי עזריאל מגורונה חברי פירוש ההגרות על—These two works are still in MS, and the quotations are given in Cormoly's *Itinéraris*, p. 276, and in Graetz's *Geschichte der Juden*, vol. vii, p. 445.

<sup>25</sup> דע כי האן סוף אשר זכרנו אינו רחוק לא בחזרה ולא בנביאים ולא בכתובים ולא בדברי ר"ל  
Comp. *מערכת מלכות* cap. vii, 32 b, ed. Mantua, 1558.

knows this name and preserves it in purity, is beloved above, cherished below, respected by every creature, and is heir of both worlds—the world that now is, and the world to come.” (*Babylon Kiddushin*, 71 a.) Upon this the celebrated Maimonides (born 1135, died 1204) remarks—“Now every one who has any intelligence knows that the forty-two letters cannot possibly make one word, and that they must therefore have composed several words. There is no doubt that these words conveyed certain ideas, which were designed to bring man nearer to the true conception of the Divine essence, through the process we have already described. These words, composed of numerous letters, have been designated as a single name, because like all accidental proper names they indicate one single object; and to make the object more intelligible several words are employed, as many words are sometimes used to express one single thing. This must be well understood, that they taught the ideas indicated by these names, and not the simple pronunciation of the meaningless letters. Neither the divine name composed of twelve letters, nor the one of forty-two letters, ever obtained the title of *Shem Ha-Mephorash*—this being the designation of the *particular name*, or the Tetragrammaton, as we have already propounded. As to the two former names, they assuredly convey a certain metaphysical lesson, and there is proof that one of them contained a lesson of this kind; for the Rabbins say in the Talmud with regard to it: ‘The name of forty-two letters is very holy, and is only communicated to such as are pious, &c., &c., &c.’ Thus far the Talmud. But how remote from the meaning of their author is the sense attached to these words! Forsooth most people believe that it is simply by the pronunciation of the mere letters, without any idea being attached to them, that the sublime things are to be obtained, and that it is for them that those moral qualifications and that great preparation are requisite. But it is evident that

the design of all this is to convey certain metaphysical ideas which constitute the mysteries of the divine Law as we have already explained. It is shewn in the metaphysical Treatises that it is impossible to forget science—I speak of the perception of *the active intellect*—and this is the meaning of the remark in the Talmud, ‘he [to whom the divine name of forty-two letters is communicated] retains what he learns.’”<sup>26</sup>

It is this passage, as well as Maimonides’ comment upon it, which led the erudite Franck to the conclusion that the mysteries of the Kabbalah were known to the doctors of the Talmud, and that the forty-two letters composing the divine name are *the ten Sephiroth*, which, by supplying the *Vav* conjunctive before the last *Sephira*, consist exactly of forty-two letters, as follows:—

5 + 5 + 3 + 3 + 5 + 5 + 5 + 4 + 4 + 3 = 42  
 כתר חכמה בינה גדולה תפארת נצח הוד מלכות יסוד

But Franck, like many other writers, confounds mysticism with Kabbalah. That the Jews had an extensive mysticism, embracing theosophy with its collateral angelology and uranology, as well as christology and magic, long before the development of the Kabbalah, and that there were a certain class of people who specially devoted themselves to the study of this mysticism, and who styled themselves “*Men of Faith*” (בעלי אמונות), is evident from a most cursory glance at the Jewish literature. Based upon the remark—“The secret of the Lord is with them that fear him, and he will show them his covenant,” (Ps. xxv, 14,) some of the most distinguished Jewish doctors in the days of Christ, and afterwards, claimed an attainment of superhuman knowledge, communicated to them either by a voice from heaven (בת קול) or by Elias the prophet (*Baba Mezia*, 59 b; *Sabbath*, 77 b; *Chagiga*, 3 b, 10 a; *Sanhedrin*, 48 b; *Nidda*, 20 b; *Joma*, 9 b).

<sup>26</sup> Comp. *More Nebuchim*, part 1, cap. lxii.

The sages had also secret doctrines about the hexahemeron (מעשה בראשית) and the Vision of Ezekiel = Theosophy (מעשה מרכבה), "which were only communicated to presidents of courts of justice and those who were of a careful heart" (*Chagiga*, 12 a—16 a). Coeven with this are the mysteries connected with the different letters of the several divine names (*Kiddushin*, 71 a). Those who were deemed worthy to be admitted into these secrets could at any moment call into existence new creations either in the animal or vegetable kingdom (*Sanhedrin*, 65 b, 67 b; *Jerusalem Sanhedrin*, vii); they could fly in the air, heal the sick, drive out evil spirits, and suspend the laws of nature, by sundry mystical transpositions and commutations of the letters composing the divine names, which they wrote down on slips of vellum or pieces of paper and called "amulets" (קמיעות). This mysticism and the literature embodying it began to develop themselves more fully and to spread more extensively from the end of the eighth and the commencement of the ninth centuries. Towards the close of the eighth century came into existence

1. The celebrated mystical work entitled *the Alphabet of Rabbi Akiba*, which alternately treats each letter of the Hebrew Alphabet as representing an idea as an abbreviation for a word (נומריקון), and as the symbol of some sentiment, according to its peculiar form, in order to attach to those letters moral, theanthropic, angelological and mystical notions. This work has recently been reprinted in two recensions in Jellinek's *Beth Ha-Midrash*, vol. iii, p. 12—64, Leipzig, 1855.

2. The *Book of Enoch* which describes the glorification of Enoch and his transformation into the angel Metatron, regarding him as יד"ד הקטן *the Minor Deity*, in contradistinction to יד"ד הגדול *the Great God* and which was originally a constituent part of *the Alphabet of R. Akiba*. It is reprinted in Jellinek's *Beth Ha-Midrash*, vol. ii, pp. 114-117. Leipzig, 1853.

3. *Shiur Koma* (שיעור קומה), or *the Dimensions of the Deity*, which claims to be a revelation from the angel Metatron to R. Ishmael, and describes the size of the body and the sundry members of the Deity. It is given in the Book Raziel (ספר ריזאל) of Eleazer b. Jehudah of Worms, printed at Amsterdam, 1701, and at Warsaw, 1812.

4. *The Palaces* (היכלות). This mystical document opens with an exaltation of those who are worthy to see the chariot throne (צפיית המרכבה), declaring that they know whatever happens and whatever is about to happen in the world ; that he who offends them will be severely punished ; and that they are so highly distinguished as not to be required to rise before any one except a king, a high priest, and the Sanhedrim. It then celebrates the praises of Almighty God and his chariot throne ; describes the dangers connected with seeing this chariot throne (מרכבה) ; gives an episode from the history of the martyrs and the Roman emperor Lupinus, a description of the angels, and of the sundry formulæ wherewith they are adjured. Whereupon follows a description of the seven heavenly palaces, each of which is guarded by eight angels, and into which the student of the mysterious chariot throne may transpose himself in order to learn all mysteries, a description of the formulæ by virtue of which these angelic guards are obliged to grant admission into the celestial palaces, and of the peculiar qualifications of those who desire to enter into them. The document then concludes with detailing some hymns of praise, a conversation between God, Israel, and the angels about those mysteries, a knowledge of which makes man suddenly learned without any trouble, and with a description of this mystery, which consists in certain prayers and charms. This mystical production has also been re-printed in Jellinek's valuable *Beth Ha-Midrash*, vol. iii, pp. 88-108.

These mystical treatises constitute the centre around which

cluster all the productions of this school, which gradually came into existence in the course of time. So numerous became the disciples of mysticism in the twelfth century, and so general became the belief in their power of performing miraculous cures, driving out evil spirits, &c., &c., by virtue of charms consisting of the letters composing the divers divine names transposed and commuted in mystical forms, that the celebrated Maimonides found it necessary to denounce the system. "We have one divine name only," says he, "which is not derived from His attributes, viz., the Tetragrammaton, for which reason it is called *Shem Ha-Mephorash* (שם המפורש). Believe nothing else, and give no credence to the nonsense of the writers of charms and amulets (כותבי הקמיעות), to what they tell you or to what you find in their foolish writings about the divine names, which they invent without any sense, calling them appellations of the Deity (שמות), and affirming that they require holiness and purity and perform miracles. All these things are fables: a sensible man will not listen to them, much less believe in them." (*More Nebuchim*, i, 61.)

But this mysticism, with its thaumaturgy, though espoused by later Kabbalists and incorporated into their writings, is perfectly distinct from the Kabbalah in its first and pure form, and is to be distinguished by the fact that it has no system, knows nothing of the speculations of *the En Soph*, *the ten Sephiroth*, the doctrine of emanations, and the four worlds, which are the essential and peculiar elements of the Kabbalah. As to Franck's ingenious hypothesis, based upon the same number of letters constituting a divine name, mentioned in the Talmud, and the *ten Sephiroth*, we can only say that the Kabbalists themselves never claimed this far-fetched identity, and that Ignatz Stern has shown (*Ben Chananja*, iii, p. 261), that the *Sohar* itself takes the ten divine names mentioned in the Bible, which it enumerated in vol. iii, 11 a, and which

it makes to correspond to the *ten Sephiroth*, to be the sacred name composed of forty-two letters, viz. :—

4 + 2 + 2 + 5 + 4 + 5 + 2 + 5 + 2 + 4 + 3 + 4 = 42  
 אהיה אשר אהיה יה ידויד אל אלהים ידוד צבאות אל חי אדני

Having ascertained its *date*, we now come to the *origin* of the Kabbalah. Nothing can be more evident than that the cardinal and distinctive tenets of the Kabbalah in its original form, as stated at the beginning of the second part of this Essay, are derived from Neo-Platonism. Any doubt upon this subject must be relinquished when the two systems are compared. The very expression *En Soph* (אין סוף) which the Kabbalah uses to designate the Incomprehensible One, is foreign, and is evidently an imitation of the Greek *ἄπειρος*. The speculations about *the En Soph*, that he is superior to actual being, thinking and knowing, are thoroughly Neo-Platonic (*ἐπέκεινα οὐσίας, ἐνεργίας, νοῦ καὶ νοησέως*); and R. Azariel, whose work, as we have seen, is the first Kabbalistic production, candidly tells us that in viewing the Deity as purely negative, and divesting him of all attributes, he followed the opinion of the philosophers.<sup>27</sup> When R. Azariel moreover tells us that “the *En Soph* can neither be comprehended by the intellect, nor described in words; for there is no letter or word which can grasp him,” we have here almost the very words of Proclus, who tells us that, “although he is generally called the unity (*τὸ ἓν*) or the first, it would be better if no name were given him; for there is no word which can depict his nature—he is (*ἄρρητος, ἀγνωστός*), the inexpressible, the unknown.” (*Theol. Plat.* ii, 6.)

The Kabbalah propounds that the *En Soph*, not being an object of cognition, made his existence known in the creation of the world by *the Sephiroth*, or *Emanations*, or *Intelligences*.

<sup>27</sup> רחמי המדקדק מודים בדבר ואומרים כי אין השנחנו כי אם על דרך לא *Commentary on the ten Sephiroth*, 2 a.

So Neo-Platonism. The *Sephiroth* are divided in the Kabbalah into a trinity of triads respectively denominated עולם השכל *the Intellectual World*, עולם הנפש *the Sensuous World*, and עולם הטבע *the Material World*, which exactly corresponds to the three triads of Neo-Platonism νοῦς, ψύχη, and φύσις. The Kabbalah teaches that these *Sephiroth* are both infinite and perfect, and finite and imperfect, in so far as the source from which they emanate imparts or withholds his fulness from them. Neo-Platonism also teaches that "every emanation, though less perfect than that from which it emanates, has yet a similarity with it, and, so far as this similarity goes, remains in it, departing from it so far as it is unlike, but as far as possible being one with it and remaining in it."<sup>28</sup> Even the comparison between the emanation of *the Sephiroth* from *the En Soph*, and the rays proceeding from light to describe the immanency and perfect unity of the two, is the same as the Neo-Platonic figure employed to illustrate the emanations from one principium (ὅλον ἐκ φωτὸς τὴν ἐξ αὐτοῦ περιλαμψιν).

<sup>28</sup> Proclus, *Inst. Theol.* 7, 31; Smith, *Dictionary of Roman and Greek Biography and Mythology*, s.v. PROCLUS.

## III.

It now remains for us to describe the development of the Kabbalah, to point out the different schools into which its followers are divided, and to detail the literature which this theosophy called into existence in the course of time. The limits of this Essay demand that this should be done as briefly as possible.

The great land mark in the development of the Kabbalah is the birth of *the Sohar*, which divides the history of this theosophy into two periods, viz., the pre-*Sohar* period and the post-*Sohar* period. During these two periods different schools developed themselves, which are classified by the erudite historian, Dr. Graetz, as follows:—<sup>1</sup>

I.—THE SCHOOL OF GERONA, so called from the fact that the founders of it were born in this place and established the school in it. To this school, which is the cradle of the Kabbalah, belong

1. Isaac the Blind (flour. 1190-1210), denominated the Father of the Kabbalah. His productions have become a prey to time, and only a few fragments have survived as quotations in other theosophic works. From these we learn that he espoused the despised doctrine of metempsychosis as an article of creed, and that from looking into a man's face, he could tell whether the individual possessed a new soul from the celestial world of spirits, or whether he had an old soul which has been migrating from body to body and has still to accomplish its purity before its return to rest in its heavenly home.

<sup>1</sup> Comp. *Geschichte der Juden*, vol. vii, p. 110, &c.

2. Azariel and Ezra, disciples of Isaac the Blind. The former of these is the author of the celebrated *Commentary on the Ten Sephiroth*, which is the first Kabbalistic production, and of which we have given an analysis in the second part of this Essay (*vide supra*, p. 274). Of Ezra next to nothing is known beyond the fact that his great intimacy with Azariel led some writers to identify the two names.

3. Jehudah b. Jakar, a contemporary of the foregoing Kabbalists. No works of his have survived, and he is only known as the teacher of the celebrated Nachmanides and from being quoted as a Kabbalistic authority.

4. Moses Nachmanides, born in Gerona about 1195, the pupil of Azariel, Ezra, and Jehudah Ibn Jakar. It was the conversion of this remarkable and famous Talmudist to this newly-born Kabbalah which gave to it an extraordinary importance and rapid spread amongst the numerous followers of Nachmanides. It is related that, notwithstanding all the efforts of his teachers, Nachmanides at first was decidedly adverse to this system; and that one day the Kabbalist who most exerted himself to convert him was caught in a house of ill fame and condemned to death. He requested Nachmanides to visit him on the Sabbath, being the day fixed for his execution; and when Nachmanides reproved him for his sins, the Kabbalist declared that he was innocent, and that he would appear at his house on this very day, after the execution, and partake with him the Sabbath meal. He proved true to his promise, as by means of the Kabbalistic mysteries he effected that, and an ass was executed in his stead, and he himself was suddenly transposed into Nachmanides' house. From that time Nachmanides avowed himself a disciple of the Kabbalah, and was initiated into its mysteries.<sup>2</sup> His numerous writings, an account of which will be found in Alexander's edition of

<sup>2</sup> *Vide* Ibn Jachja, *Shalsheth Ha-Kabbalah*; Grætz, *Geschichte der Juden*, vii, 88, &c.

Kitto's Cyclopædia, under NACHMANIDES, are pervaded with the tenets of this system. In the Introduction to his Commentary on the Pentateuch he remarks—"We possess a faithful tradition that the whole Pentateuch consists of names of the Holy One, blessed be he; for the words may be divided into sacred names in another sense, so that it is to be taken as an allegory. Thus the words—**בְּרֵאשִׁית בְּרָא אֱלֹהִים** in Gen. i, 1, may be redivided into other words, *ex. gr.* **בְּרֵאשׁ יְתֵבְרָא אֱלֹהִים** In like manner is the whole Pentateuch, which consists of nothing but transpositions and numerals of divine names."<sup>3</sup>

5. The *Treatise on the Emanations* (מסכת אצילות), supposed to have been written by R. Isaac Nasir in the first half of the twelfth century. The following is an analysis of this production. Based upon the passage—"Jaresiah and Eliah and Zichri, the sons of Jeroham" (1 Chron. viii, 27), which names the *Midrash* assigns to the prophet Eliah (*Shemoth Rabba*, cap. xl), this prophet is introduced as speaking and teaching under the four names of Eliah b. Josep, Jaresiah b. Joseph, Zechariah b. Joseph and Jeroham b. Joseph. Having stated that the secret and profounder views of the Deity are only to be communicated to the God-fearing, and that none but the pre-eminently pious can enter into the temple of this higher gnosis, the prophet Elias propounds the system of this secret doctrine, which consists in the following maxims—  
I. God at first created light and darkness, the one for the pious and the other for the wicked, darkness having come to pass by the divine limitation of light. II. God produced and destroyed sundry worlds, which, like ten trees planted upon a narrow space, contend about the sap of the soil, and finally perish altogether. III. God manifested himself in four worlds,

3 עוד יש בדיני קבלה של אמת כי כל התורה כולה שמוחיו של הקב"ה שהחיו' מחולקות לשמית בענין אחד כאלו החשוב על דרך משל כי מסוק בראשית יחולק לחיבת אחרות כגון בראש יתברא אלהים וכל התורה כן מלבד צירופות וניספוריותיהן של שמות

viz.—*Atzilah*, *Beriah*, *Jetzira* and *Asiah*, corresponding to the Tetragrammaton ידוה. In the *Atzilatic luminous world* is the divine majesty, the Shechinah. In the *Briatic world* are the souls of the saints, all the blessings, the throne of the Deity, he who sits on it in the form of Achtenal (the crown of God, the first *Sephira*), and the seven different luminous and splendid regions. In the *Jetziratic world* are the sacred animals from the vision of Ezekiel, the ten classes of angels with their princes, who are presided over by the fiery Metatron, the spirits of men, and the accessory work of the divine chariot. In the *Asiatic world* are the Ophanim, the angels who receive the prayers, who are appointed over the will of man, who control the action of mortals, who carry on the struggle against evil, and who are presided over by the angelic prince Synandelphon. IV. The world was founded in wisdom and understanding (Prov. iii, 19), and God in his knowledge originated fifty gates of understanding. V. God created the world by means of the *ten Sephiroth*, which are both the agencies and qualities of the Deity. The *ten Sephiroth* are called Crown, Wisdom, Intelligence, Mercy, Fear, Beauty, Victory, Majesty and Kingdom: they are ideal and stand above the concrete world.”<sup>4</sup>

6. Jacob ben Sheshet of Gerona (flour. 1243). He wrote a Kabbalistic Treatise in rhymed prose, entitled שער השמים *the Gate of Heaven*, after Gen. xxviii, 17. It was first published by Gabriel Warshawer in his collection of eight Kabbalistic Essays, called ספר לקושים בקבלה. Warsaw, 1798. It forms the third Essay in this collection, and is erroneously entitled לקושי שם טוב *the Collection of Shem Tob*. It has now been published under its proper title, from a codex by

<sup>4</sup> This remarkable Treatise was first published by R. Abraham, Vilna, 1802; it was then reprinted with all its faults in Lemberg, 1850. The erudite and indefatigable Dr. Jellinek has now reprinted it in his *Auswahl kabbalistischer Mytik*, part i, Leipzig, 1853, and the above analysis is from the Introduction to this excellent edition.

Mordecai Mortera, in the Hebrew Essays and Reviews, entitled *Ozar Nechmad* (אוצר נחמד) vol. iii, p. 153, &c. Vienna, 1860.

The characteristic feature of this school, which is the creative school, is that it for the first time established and developed the doctrine of *the En Soph* (אין סוף) *the Sephiroth* (ספירות) or *Emanations*, metempsychosis (סוד העבור) with the doctrine of retribution (סוד הנמול) belonging thereto, and a peculiar christology, whilst the Kabbalistic mode of exegesis is still subordinate in it.

II.—THE SCHOOL OF SEGOVIA, so called because it was founded by Jacob of Segovia, and its disciples were either natives of this place or lived in it. The chief representatives of this school are—

1, Isaac, and 2, Jacob, junior, the two sons of Jacob Segovia, and 3, Moses b. Simon of Burgos, who are only known by sundry fragments preserved in Kabbalistic writings.

4. Todras b. Joseph Ha-Levi Abulafia, born 1234, died circa 1305. This celebrated Kabbalist occupied a distinguished position as physician and financier in the court of Sancho IV, King of Castile, and was a great favourite of Queen Maria de Moline; he formed one of the *cortége* when this royal pair met Philip IV, *the Fair*, King of France in Bayonne (1290), and his advocacy of this theosophy secured for the doctrines of the Kabbalah a kindly reception. His works on the Kabbalah are—(a) An Exposition of the Talmudic Hagadoth, entitled אוצר חכמה, (b) A Commentary on Ps. xix, and (c) A Commentary on the Pentateuch, in which he propounds the tenets of the Kabbalah. These works, however, have not as yet been printed.<sup>5</sup>

5. Shem Tob b. Abraham Ibn Gaon, born 1283, died circa 1332, who wrote many Kabbalistic works.

6. Isaac of Akko (flour. 1290) author of the Kabbalistic

<sup>5</sup> Steinschneider, *Catalogus Libr. Hebr. in Bibliotheca Bodleiana*, 2677-2680. Graetz, *Geschichte der Juden*, vii, 218, &c.

Commentary on the Pentateuch, entitled מאירת עינים not yet printed, with the exception of an extract published by Jellinek.<sup>6</sup>

The characteristic of this school is that it is devoted to exegesis, and its disciples endeavoured to interpret the Bible and the Hagada in accordance with the doctrines of the Kabbalah.

✓ III.—THE QUASI-PHILOSOPHIC SCHOOL of Isaac b. Abraham Ibn Latif, or Allatif. He was born about 1270 and died about 1390. Believing that to view Judaism from an exclusively philosophical stand-point does not shew "the right way to the sanctuary," he endeavoured to combine philosophy with Kabbalah. "He laid greater stress than his predecessors on the close connection and intimate union between the spiritual and material world, between the Creator and the creation—God is in all and everything is in him. The human soul rises to the world-soul in earnest prayer, and unites itself therewith 'in a kiss,' operates upon the Deity and brings down a divine blessing upon the nether world. But as every mortal is not able to offer such a spiritual and divinely operative prayer, the prophets, who were the most perfect men, had to pray for the people, for they alone knew the power of prayer. Isaac Allatif illustrated the unfolding and self-revelation of the Deity in the world of spirits by mathematical forms. The mutual relation thereof is the same as that of the point extending and thickening into a line, the line into the flat, the flat into the expanded body. Henceforth the Kabbalists used points and lines in their mystical diagrams as much as they employed the numerals and letters of the alphabet."<sup>7</sup>

IV. THE SCHOOL OF ABULAFIA, founded by Abraham ben Samuel Abulafia, is represented by—

<sup>6</sup> Comp. *Beiträge zur Geschichte der Kabbala*, von Adolph Jellinek, part ii, Leipzig, 1852, p. xiii, &c.

<sup>7</sup> Comp. Graetz, *Geschichte der Juden*, vol. vii, p. 221, &c.

1. Abulafia, the founder of it, who was born at Saragossa in 1240, and died circa 1292. For thirty years he devoted himself to the study of the Bible, the Talmud, philology, philosophy, and medicine, making himself master of the philosophical writings of Saadia, Bachja b. Joseph, Maimonides, and Antoli, as well as of the Kabbalistic works which were then in existence. Finding no comfort in philosophy, he gave himself entirely to the mysteries of the Kabbalah in their most fantastic extremes, as the ordinary doctrine of *the Sephiroth* did not satisfy him. The ordinary doctrine of *the Sephiroth* he simply regarded as *a ten unity* instead of the Christian *three unity*. Through divine inspiration, he discovered a higher Kabbalah, by means of which the soul can not only hold the most intimate communion with the world-soul, but obtain the prophetic faculty. The simple intercourse with the world of spirits, which is effected by separating the words of Holy Writ, and especially those of the divine name, into letters, and by regarding each letter as a distinct word (נושריקון), or by transposing the component parts of words in every possible way to obtain thereby peculiar expressions (צירוף), or by taking the letters of each word as numerals (גמטריא), is not sufficient. To have the prophetic faculty and to see visions ought to be the chief aim, and these are secured by leading an ascetic life, by banishing all worldly feelings, by retiring into a quiet closet, by dressing oneself in white apparel, by putting on the fringed garment and the phylacteries; by sanctifying the soul so as to be fit to hold converse with the Deity; by pronouncing the letters composing the divine name with certain modulations of the voice and divine pauses; by exhibiting the divine names in various diagrams under divers energetic movements, turnings, and bendings of the body, till the voice gets confused and the heart is filled with fervour. When one has gone through these practices and is in such a condition, the fulness of the

Godhead is shed abroad in the human soul: the soul then unites itself with the divine soul in a kiss, and prophetic revelations follow as a matter of course.

He went to Italy, published, in Urbino (1279), a prophecy, in which he records his conversations with the Deity, calling himself Raziel and Zechariah, because these names are numerically the same as his own name, Abraham,<sup>8</sup> and preached the doctrines of the Kabbalah. In 1281 he had a call from God to convert the Pope, Martin IV, to Judaism, for which he was thrown into prison, and narrowly escaped a martyr's death by fire. Seeing that his Holiness refused to embrace the Jewish religion, Abulafia went to Sicily, accompanied by several of his disciples. In Messina another revelation from God was vouchsafed to him, announcing to him that he was the Messiah, which he published 1284. This apocalypse also announced that the restoration of Israel would take place in 1296; and so great was the faith which the people reposed in it, that thousands prepared themselves for returning to Palestine. Those, however, who did not believe in the Messiahship and in the Kabbalah of Abulafia, raised such a violent storm of opposition against him, that he had to escape to the island of Comino, near Malta (*circa* 1288), where he remained for some time, and wrote sundry Kabbalistic works.

His Kabbalistic system may be gathered from the following analysis of his Rejoinder to R. Solomon ben Abraham ben Adereth, who attacked his doctrines and Messianic as well as prophetic pretensions. "There are," says Abulafia, "four sources of knowledge—I, The five senses, or experimental maxims; II, Abstract numbers or *à priori* maxims; III, The generally acknowledged maxims, or *consensus communis*;

<sup>8</sup> This will be seen from the reduction of the respective names to their numerical value by the rule *Gematria*, viz.:— $\aleph$  30 +  $\mem$  1 +  $\iota$  10 +  $\kappa$  7  $\gamma$  200 = 248;  
 $\iota$  6 +  $\eta$  5 +  $\iota$  10 +  $\gamma$  200 +  $\kappa$  30 +  $\gamma$  7 = 248;  
 and  $\kappa$  40 +  $\eta$  5 +  $\gamma$  200 +  $\iota$  2 +  $\aleph$  1 = 248.

and IV, Transmitted doctrines or traditional maxims. The Kabbalistic tradition, which goes back to Moses, is divisible into two parts, the first of which is superior to the second in value, but subordinate to it in the order of study. The first part is occupied with the knowledge of the Deity, obtained by means of the doctrine of *the Sephiroth*, as propounded in the *Book Jetzira*. The followers of this part are related to those philosophers who strive to know God from his works, and the Deity stands before them objectively as a light beaming into their understanding. These, moreover, give to *the Sephiroth* sundry names to serve as signs for recognition ; and some of this class differ but little from Christians, inasmuch as they substitute a *decade* for the *triad*, which they identify with God, and which they learned in the school of Isaac the Blind.

The second and more important part strives to know God by means of the twenty-two letters of the alphabet, from which, together with the vowel points and accents, those sundry divine names are combined, which elevate the Kabbalists to the degree of prophecy, drawing out their spirit, and causing it to be united with God and to become one with the Deity. This is gradually effected in the following manner. The *ten Sephiroth* sublimates gradually to the upper *Sephira*, called *thought*, *crown*, or *primordial air*, which is the root of all the other *Sephiroth*, and reposes in the creative *En Soph*. In the same manner all the numerals are to be traced back to one, and all the trees, together with their roots and branches, are converted into their original earth as soon as they are thrown into the fire. To the *ten Sephiroth*, consisting of upper, middle and lower, correspond the letters of the alphabet, which are divided into three rows of ten letters each, the final letters inclusive, beginning and ending with *Aleph* ; as well as the human body, with its head, the two arms, loins, testicles, liver, heart, brain, all of which unite into a higher unity and become one in the active *rocs*, which in its

turn again unites itself with God, as the unity to which everything must return.

The *ten Sephiroth* are after a higher conception, to be traced to a higher triad, which correspond to the letters *Aleph*, *Beth*, *Gimmel*, and the three principles combined in man, the vital in the heart, the vegetable in the liver, and the pleasurable in the brain, and also form themselves in a higher unity. It is in this way that the Kabbalist who is initiated into the *prophetic* Kabbalah may gradually concentrate all his powers direct to one point to God, and unite himself with the Deity, for which purpose the ideas developed in unbroken sequence, from the permutations of numbers and letters, will serve him as steps upon which to ascend to God.”<sup>9</sup>

Abulafia wrote no less than twenty-six grammatical, exegetical, mystical and Kabbalistic works, and twenty-two prophetic treatises. And though these productions are of great importance to the history of the literature and development of the Kabbalah, yet only two of them, viz., the above-named *Epistle to R. Solomon* and the *Epistle to R. Abraham*, entitled *the Seven Paths of the Law* (שבוע נתיבות התורה), have as yet been published.

2. Joseph Gikatilla b. Abraham (flour. 1260), disciple of Abulafia. He wrote in the interests and defence of this school the following works:—i. A Kabbalistic work entitled *the Garden of Nuts* (גנת אֵנוֹחַ), consisting of three parts, and treating respectively on the import of the divine names, on the mysteries of the Hebrew letters, and on the vowel points. It was published at Hanau, 1615. ii. The import of the vowel points entitled *the Book on Vowels* (ספר הניקוד), or *the Gate to the Points* (שער הניקוד), published in the collection of seven treatises, called *the Cedars of Lebanon*

<sup>9</sup> This Epistle of Abulafia has been published by Jellinek in his *Auswahl kabbalistischer Mystik*, part i, p. 13, &c., Leipzig, 1853, who also gives the above analysis, which we have translated as literally as possible.

(אורי לבנן), Venice, 1601, and Cracow, 1648, of which it is the third treatise. iii. *The Mystery of the Shining Metal* (סוד החשכל), being a Kabbalistic exposition of the first chapter of Ezekiel, also published in the preceding seven treatises, of which it is the fourth. iv. *The Gate of Light* (שער אורה), being a treatise on the names of the Deity and the *ten Sephiroth*, first published in Mantua, 1561; then Riva de Trento, 1561; Cracow, 1600. A Latin version of it by Knorr von Rosenroth is given in the first part of the *Cabbala Denudata*, Sulzbach, 1677-78. v. *The Gates of Righteousness* (שערי צדק), on the ten divine names answering to the *ten Sephiroth*, published at Riva de Trento, 1561. vi. *Mysterics* (סודות) connected with sundry Pentateuchal ordinances, published by Jechiel Ashkenazi in his *Temple of the Lord* (היכל יהוה), Venice and Dantzic, 1596-1606.<sup>10</sup>

From the above description it will be seen that the characteristic features of this school are the stress which its followers lay on the extensive use of the exegetical rules called *Gematria* (נמטריא), *Notaricon* (נוטריקון), and *Ziruph* (צירוף), in the exposition of the divine names and Holy Writ, as well as in the claim to prophetic gifts. It must, however, be remarked that in this employment of commutations, permutations and reduction of each letter in every word to its numerical value, Abulafia and his followers are not original.

V. THE SOHAR SCHOOL, which is a combination and absorption of the different features and doctrines of all the previous schools, without any plan or method.

1236-1315. Less than a century after its birth the Kabbalah became known among Christians through the restless efforts of Raymond Lully, the celebrated scholastic metaphysician and experimental chemist. This *Doctor illuminatus*, as he was styled, in consequence of his great learning and

<sup>10</sup> Comp. Jellinek, *Beiträge zur Geschichte der Kabbala*, part ii, p. 60, &c.; Steinschneider, *Catalogus Libr. Hebr. in Bibliotheca Bodleiana*, Col. 1461-1470.

piety, was born about 1286 at Palma, in the island of Majorca. He relinquished the military service and writing erotic poetry when about thirty, and devoted himself to the study of theology. Being inspired with an ardent zeal for the conversion of the Mohammedans and the Jews to Christianity, he acquired a knowledge of Arabic and Hebrew for this purpose. In pursuing his Hebrew studies Lully became acquainted with the mysteries of the Kabbalah, and, instead of converting his Kabbalistic teachers, he embraced the doctrine of "the identity of the Deity and nature;"<sup>11</sup> and there is very little doubt that the Kabbalistic method of palming their notions on the text of Scripture, by means of the *Gematria*, *Notaricon* and *Ziruph*, suggested to him the invention of *the Great Art* (ARS MAGNA). It is therefore not to be wondered at that he had the loftiest conception of the Kabbalah, that he regarded it as a divine science and as a genuine revelation whose light is revealed to a rational soul.<sup>12</sup> It cannot be said that Lully derived as much benefit from the Mohammedans, for after making three perilous journeys to Africa to bring the sons of Ishmael to the truth of Christianity, he was stoned to death by them, June 30, 1315.

The new era in the development of the Kabbalah, created by the appearance of the *Sohar*, has continued to the present day, for nearly all those who have since espoused the doctrines of this theosophy have made the *Sohar* their text-book, and the principal writers have contented themselves more or less with writing commentaries on this gigantic pseudonym.

1290-1350. Foremost among these is Menahem di Recanti, who was born in Recanti (Latin Recinetum) about 1290. He wrote, when about forty years of age (1330), a commentary

<sup>11</sup> Comp. Tennemann, *Geschichte der Philosophie*, vol. viii. p. 837.

<sup>12</sup> Dicitur haec doctrina Kabbala quod idem est secundum Hebraeos ut receptio veritatis cujuscumque rei divinitus revelatae animae rationali. . . . Est igitur Kabbala habitus animae rationalis ex recta ratione divinarum rerum cognitivus; propter quod est de maximo etiam divino consequentive divina scientia vocari debet. Comp. *De Auditu Kabbalistico, sive ad omnes scientias introductorium*. Strasburg, 1651.

on the Pentateuch, which is little else than a commentary on the *Sohar*. This commentary—which was first published by Jacob b. Chajim in Bomberg's celebrated printing establishment, Venice, 1523, then again, *ibid*, 1545, and in Lublin, 1695—has been translated into Latin by the famous Pico della Mirandola.<sup>13</sup> ✓

1820. At the beginning of the fourteenth century Joseph b. Abraham Ibn Wakkar (flour. 1290-1340) endeavoured to reconcile this theosophy with philosophy, and to this end wrote a *Treatise on the cardinal doctrines of the Kabbalah*, which is regarded as one of the best if not the best introductory compendium. This production, which is unpublished, and a MS. of which exists in the Bodleian Library (Codex Land. 119; described by Uri No. 884), consists of four parts or *Gates*, subdivided into chapters, as follows :—

GATE I, which is entitled, *On the views of the Kabbalists respecting the Primary Cause, blessed be he, and the Sephiroth, as well as their names and order*, consists of eight chapters, treating respectively on the fundamental doctrines of the emanations of the *Sephiroth* from the First Cause, as transmitted from Abraham and indicated in the Bible and the Rabbinic writings in *Gematrias* (cap. i); on the unity of the *Sephiroth* (cap. ii); the relation of the *Sephiroth* to each other, the First Cause itself being a trinity consisting of a threefold light, the number of the *Sephiroth* being from 10, 20, 30 and so on up to 310, stating that there is a difference of opinion amongst the Kabbalists whether the Primary Cause is within or without the *Sephiroth* (cap. iii); on the three worlds of the *Sephiroth* (cap. iv); on the beginninglessness of the first and necessary first Emanation, investigating the question as to how many *Sephiroth* this property extends (cap. v); on

<sup>13</sup> For the other works of Recanti, both published and unpublished, as well as for the exact date of his literary labours, we must refer to Steinschneider, *Catalogus Libr. Hebr. in Bibliotheca Bodleiana*, Col. 1788-1787; and to Fürst, *Bibliotheca Judaica*, vol. iii, pp. 136, 136.

the subordination and order of the *Sephiroth* and the diagrams, mentioning, in addition to the three known ones, the figure of bridegroom and bride under the nuptial canopy (cap. vi) ; on the names of the Deity and the angels derived from the *Sephiroth* (cap. vii) ; on the unclean (demon) *Sephiroth* or Hells (קליפות) and their relation to the pure ones (cap. viii).

GATE II, which is entitled, *On the influence of the Sephiroth on the government of the world (Providence)*, consists of six chapters, treating respectively on the relation of the *Sephiroth* to the fundamental characteristics of Providence, such as mercy, justice, &c. (cap. i) ; on the corresponding relations of the unclean *Sephiroth* (cap. ii) ; on the influence of the *Sephiroth* on men, especially on the Hebrew race, and their vicissitudes (caps. iii and iv) ; on the possibility of the *Sephiroth* withholding this influence (cap. v) ; and on the relation of the *Sephiroth* to the days of the week (cap. vi).

GATE III, which is entitled, *On the names of the Sephiroth among the Kabbalists*, and which is the most extensive part of the work, consists of seven chapters, treating respectively on the names of the Deity, giving the sundry explanations of איהו אשר איהו current among the Jewish philosophers (cap. 1) ; on the names of the *Sephiroth*, stating that there is no uniform principle among the Kabbalists ; that the appellations are derived from the Bible, the Talmud and later literati ; that the greatest difference of opinion prevails among the Kabbalists as to the mode in which these ancient sources are to be interpreted, recommending the following works as reliable guides : the Talmud, Midrash Rabbah, Siphra, Siphri, Bahir, Perakim of R. Eliezer, the opinions of Nachmanides and Todros Ha-Levi Abulafia of honoured memory, but guarding against the *Sohar*, because "*many blunders occur therein* (cap. ii) ; on the import of the names of the *Sephiroth*, with examples of interpretation of the Bible and Talmud

to serve as aids for the student who is to prosecute the work according to these examples, mentioning three explanations of the word *Sephira* (cap. iii); on the divine names occurring in the Pentateuch (cap. iv); on the masculine and feminine nature of the *Sephiroth* (cap. v); this is followed (cap. vi) by an alphabetical dictionary of the names of the *Sephiroth*, giving under each letter the Biblical and the corresponding Talmudic appellation appropriated by the Kabbalists to the *Sephiroth*; and (cap. vii) by an index of the names of each *Sephira* in alphabetical order without any explanation.

GATE IV, which is entitled *On the positive proofs of the existence of the Kabbalah*, describes the author's own views of the Kabbalistic system, and submits that the Kabbalist has a preference over the philosopher and astronomer by virtue of the acknowledged maxim that he has a thorough knowledge of a thing who knows most details about it. Now the Kabbalists build their system upon the distinction of words, letters, &c., &c., in the sacred writings; and they also explain certain formularies among the Rabbins, which have undoubtedly a recondite sense.<sup>14</sup>

1370-1500. During the fourteenth and fifteenth centuries the Kabbalah took deep root in Spain. Its followers, who were chiefly occupied with the study of *the Sohar*, with editing some older works, and with writing Kabbalistic commentaries on the Bible, became more and more aggressive, denouncing in unmeasured terms their co-religionists who could not see the advantages of this secret doctrine. Thus Abraham b. Isaac of Granada—who wrote (1391-1409) a Kabbalistic work entitled *The Covenant of Peace*, discussing

14 The MS. of Ibn Wakkar's Treatise is minutely described by Uri (No 384). It is written in a character resembling the later German Hebrew, is furnished with references to the passages in the Bible and verbal translations in Latin, and contains such clerical blunders as no Hebrew copyist would commit. The above analysis of it is taken from the article in *Ersch und Gruber's Allgemeine Encyclopädie*, section ii, vol. xxxi, p. 100, &c., written by the erudite Steinschneider. For the other Kabbalistic works of Ibn Wakkar we must refer to the same elaborate article.

the mysteries of the names of God and the angels, of permutations, commutations, the vowel points and accents—declares that he who does not acknowledge God in the manner of the Kabbalah sins unwittingly, is not regarded by God, has not his special providence, and, like the abandoned and the wicked, is left to fate.<sup>15</sup>

Similar in import and tone are the writings of Shem Tob Ibn Shem Tob (died 1480). In his Treatise, entitled *the Book of Faithfulness*, which is an attack on the Jewish philosophers Ibn Ezra, Maimonides, Levi b. Gerson, &c., and a defence of the Kabbalah, Shem Tob denounces the students of philosophy as heretics, and maintains that the salvation of Israel depends upon the Kabbalah. He also wrote Homilies on the Pentateuch, the Feasts and Fasts, &c., in which the Kabbalistic doctrines are fully propounded.<sup>16</sup>

Moses Botarel or Botarelo, also a Spaniard, wrote at this time (1409) his commentary on the famous *Book Jetzira*, an analysis of which is given in the foregoing part of this Essay (*vide supra*, p. 245, &c.) Unlike Abraham of Granada and Shem Tob, his two contemporary champions of the Kabbalah, he praises philosophy, speaks of Aristotle as of a prophet, and maintains that philosophy and the Kabbalah propound exactly the same doctrines, and that they only differ in language and in technical terms. In this commentary, which he wrote to instruct the Christian scholar Maestro Juan in the Kabbalah, Botarel shows how, by fasting, ablations, prayer, invocation of divine and angelic names, a man may have such dreams as shall disclose to him the secrets of the future. In confirmation of his opinions he quotes such ancient authorities as Rab Ashi, Saadia Gaon, Hai Gaon, &c., whom the Kabbalah claims as its great

<sup>15</sup> This ספר חמדת המעלות has been published in Amsterdam, 1648.

<sup>16</sup> The ספר חמדת המעלות consists of eleven parts, subdivided into chapters, and was published in Ferrara, 1557; the Homilies, entitled דרשות על חמדת המעלות were first published in Venice, 1547, and then in Padua, 1567.

pillars.<sup>17</sup> It is almost needless to remark that these men lived long before the birth of the Kabbalah, and that this mode of palming comparatively modern opinions upon great men of remote ages, has also been adopted by advocates of other systems who were anxious to invest their views with the halo of antiquity.

As countrymen of the foregoing writers, and as exponents of the opinions of older Kabbalists, are to be mentioned—(i) Jehudah Ohajath who was among the large number of Jews expelled from Spain in 1498, and who wrote a commentary on the Kabbalistic work, entitled *The Divine Order*;<sup>18</sup> and (ii) Abraham Ibn Sabba, who was banished with thousands of his brethren from Lisbon, 1499, and who is the author of a very extensive commentary on the Pentateuch, entitled *The Bundle of Myrrh*, in which he largely avails himself of the *Sohar* and other earlier Kabbalistic works.<sup>19</sup>

1468-1494. The Kabbalah, which soon after its birth became partially known to Christians through Raymond Lully, was now accessible to Christian scholars through the exertions and influence of the famous Count John Pico di Mirandola ✱ (born in 1463). This celebrated philosopher determined to fathom the mysteries of the Kabbalah, and for this purpose put himself under the tuition of a Jew, R. Jochanan Aleman, who came to Italy from Constantinople. His extraordinary intellectual powers soon enabled Mirandola to overcome the difficulties and to unravel the secrets of this theosophy. His labours were greatly rewarded; for, according to his shewing,

17 Botarel's Commentary on the *Book Jezira* was first published with the text of this book and other commentaries, Mantua, 1562; then Zolkiev, 1745; and in Grodno, 1806, 1820.

18 The *מסכת חזקוני* which is a Commentary on the *מסכת חזקוני* was published together with it in Ferrara, 1568.

19 The Commentary *צורי חסד* was first published at Constantinople, 1514; then in Venice, 1523, 1546, 1566; and in Cracow 1595. Pellican has translated this Commentary into Latin, and the MS. of this version is in the Zurich Library.

\* he found that<sup>20</sup> there is more Christianity in the Kabbalah than Judaism; he discovered in it proof for the doctrine of the Trinity, the Incarnation, the divinity of Christ, original sin, the expiation thereof by Christ, the heavenly Jerusalem, the fall of the angels, the order of the angels, purgatory and hell-fire; in fact the same Gospel which we find in St. Paul, Dionysius, St. Jerome and St. Augustine. As the result of his Kabbalistic studies Mirandola published, in 1486, when only twenty-four years of age, *nine hundred Theses*, which were placarded in Rome, and which he undertook to defend in the presence of all European scholars, whom he invited to the eternal city, promising to defray their travelling expenses. Among these *Theses* was the following, "*No science yields greater proof of the divinity of Christ than magic and the Kabbalah.*"<sup>21</sup> Pope Sixtus IV (1471-1484) was so delighted with it that he greatly exerted himself to have Kabbalistic writings translated into Latin for the use of divinity students.<sup>22</sup> Mirandola accordingly translated the following three works:

- 1, Menahem di Recanti's Commentary on the Pentateuch, erroneously called *R. Levi de Recineto* (Wolf, *ibid*, p. 10);
- 2, Eliezer of Worms' חכמת הנפש *de Scientia animae*; and
- 3, Shem Tob Falaquera's ספר המעלות

1455-1522. Not only did Mirandola make the Kabbalah known to the Christians in Italy, but he was the means of introducing it into Germany through John Reuchlin, the

20 Vidi in illis (testis est Deus) religionem non tam Mosaicam quam Christianam; ibi Trinitatis mysterium; ibi verbi Incarnatio, ibi Messiae divinitates; ibi de peccato originali, de illius per Christum expiatione, de caelesti Hierusalem, de casu dæmonum, de ordinibus Angelorum, de Purgatoriis, de Inferorum poenis; Eadem legi, quae apud Paulum et Dionysium, apud Hieronymum et Augustinum quotidie legimus. Comp. *Index a Jacobo Gaffarello*, published by Wolf, *Bibliotheca Hebraea*, vol. i, p. 9 at the end of the volume.

21 Nulla est scientia, quae nos magis certificet de divinitate Christi, quam magia et Cabbala, vide *Apologia*, p. 42, opp. vol. I. Basil, 1601.

22. Hic libri (Cabbalistorum) Sixtus IV, Pontifex maximus, qui hunc, sub quo vivimus feliciter, Innocentium VIII, proxime antecessit, maxima cura studioque curavit, ut in publicam fidei nostrae utilitarem, Latinis literis mandarentur, jamque cum ille decessit, tres ex illis pervenerant ad Latinos. Vide Gaffarelli in Wolf, *Bibliotheca Hebraea*, appendix to vol. i, p. 9.

father of the German Reformation. This eminent scholar,—who is also called by the Greek name *Capnion* (καπνιον), or *Capnio*, which is a translation of his German name REUCHLIN, *i.e.* *smoke*, in accordance with the fashion of the time ; just as GERARD, signifying *amiable*, assumed the name of DESIDERIUS ERASMUS, and SCHWARTZERTH, denoting *black earth*, took the name of MELANCHTHON,—was born at Phorzheim December 28, 1455. At the age of seventeen he was called to the court of Baden, and received among the court singers in consequence of his beautiful voice. His brilliant attainments soon attracted notice, and he was sent (1473) with the young Margrave Frederick, eldest son of Charles II, afterwards bishop of Utrecht, to the celebrated high school of Paris. Here he acquired, from Hermonymus of Sparta and other fugitive Greek literati, who went to Paris after the taking of Constantinople (1453), that remarkable knowledge of Greek which enabled him so largely to amass the Attic lore and rendered him so famous through Europe. He went to Basle in 1474, delivered lectures on the Latin language and the classics, and had among his hearers nobles of high rank both from France and Germany. He went to Tübingen in 1481, where his fame secured for him the friendship of Eberhard the Bearded, who made him his private secretary and privy councillor, and as such this prince took Reuchlin with him to Rome in 1482, where he made that splendid Latin oration before the Pope and the cardinals, which elicited from his Holiness the declaration that Reuchlin deserved to be placed among the best orators of France and Italy. From Rome Eberhard took him to Florence, and it was here that Reuchlin became acquainted with the celebrated Mirandola and with the Kabbalah. But as he was appointed licentiate and assessor of the supreme court in Stuttgart, the new residence of Eberhard, on his return in 1484, and as the order of Dominicans elected him as their proctor in the whole of Germany,

Reuchlin had not time to enter at once upon the study of Hebrew and Aramaic, which are the key to the Kabbalah, and he had reluctantly to wait till 1492, when he accompanied Eberhard to the imperial court at Ling. Here he became acquainted with R. Jacob b. Jechiel Loanz, a learned Hebrew, and court physician of Frederick III, from whom he learned Hebrew.<sup>23</sup> Whereupon Reuchlin at once betook himself to the study of *the Kabbalah*, and within two years of his beginning to learn the language in which it is written, his first Kabbalistic treatise, entitled *De Verbo Mirifico* (Basle, 1494), appeared. This treatise is of the greatest rarity, and the following analysis of it is given by Franck. It is in the form of a dialogue between an Epicurean philosopher named Sidonius, a Jew named Baruch, and the author, who is introduced by his Greek name Capnio, and consists of three books, according to the number of speakers.

Book I, the exponent of which is Baruch the Jewish Kabbalist, is occupied with a refutation of the Epicurean doctrines, and simply reproduces the arguments generally urged against this system, for which reason we omit any further description of it.

Book II endeavours to shew that all wisdom and true philosophy are derived from the Hebrews, that Plato, Pythagoras and Zoroaster borrowed their ideas from the Bible, and that traces of the Hebrew language are to be found in the liturgies and sacred books of all nations. Then follows an explanation of the four divine names, which are shown to have been transplanted into the systems of Greek philosophy. The first and most distinguished of them אֱהִיָּה אֲשֶׁר אֲהִיָּה *ego sum qui sum* (Exod. iii, 12), is translated in the Platonic philosophy by τὸ ὄντως ὄν. The second divine name, which we translate by הוּא הֵּ, i.e., the sign of unchangeableness and

<sup>23</sup> "Is (Jekiel Loanz) me, supra quam dici queat, fideliter literos Hebraicos primus edocuit." Comp. *Rudim. Hebr.* p. 3,

of the eternal idea of the Deity, is also to be found among the Greek philosophers in the term *ταυρόν*, which is opposed to *σάρεπόν*. The third name of God used in Holy Writ is **ON FIRE**. In this form God appeared in the burning bush when he first manifested himself to Moses. The prophets describe him as a burning fire, and John the Baptist depicts him as such when he says, "I baptize you with water, but he who cometh after me shall baptize you with fire." (Matt. iii, 11.) The fire of the Hebrew prophets is the same as the ether (*αιθήρ*) mentioned in the hymns of Orpheus. But these three names are in reality only one, showing to us the divine nature in three different aspects. Thus God calls himself *the Being*, because every existence emanates from him; he calls himself *Fire*, because it is he who illuminates and animates all things and he is always **HE**, because he always remains like himself amidst the infinite variety of his works. Now just as there are names which express the nature of the Deity, so there are names which refer to his attributes, and these are the *ten Sephiroth*. If we look away from every attribute and every definite point of view in which the divine subsistence may be contemplated, if we endeavour to depict the absolute Being as concentrating himself within himself, and not affording us any explicable relation to our intellect, he is then described by a name which it is forbidden to pronounce, by the thrice holy Tetragrammaton, the name Jehovah (*יהוה*) *the Shem Ha-Mephorash* (*שם המפורש*).

There is no doubt that the tetrad (*τετρας*) of Pythagoras is an imitation of the Hebrew Tetragrammaton, and that the worship of the decade has simply been invented in honour of the *ten Sephiroth*. The four letters composing this name represent the four fundamental constituents of the body (*i.e.*, heat, cold, dryness and humidity), the four geometrical principal points (*i.e.*, the point, the line, flat and body), the four notes of the musical scale, the four rivers in the earthly

paradise, the four symbolical figures in the vision of Ezekiel, &c., &c., &c. Moreover if we look at these four letters separately we shall find that each of them has equally a recondite meaning. The first letter י, which also stands for the number *ten*, and which by its form reminds us of the mathematical point, teaches us that God is the beginning and end of all things. The number *five*, expressed by ה the second letter, shows us the union of God with nature—of God inasmuch as he is depicted by the number three, *i.e.*, the Trinity; and of visible nature, inasmuch as it is represented by Plato and Pythagoras under the dual. The number *six*, expressed by ו, the third letter, which is likewise revered in the Pythagorean school, is formed by the combination of one, two, and three, the symbol of all perfection. Moreover the number *six* is the symbol of the cube, the bodies (*solida*), or the world. Hence it is evident that the world has in it the imprint of divine perfection. The fourth and last letter of this divine name (ו) is like the second, represents the number *five*, and here symbolizes the human and rational soul, which is the medium between heaven and earth, just as five is the centre of the decade, the symbolic expression of the totality of things.

Book III, the exponent of which is Capnio, endeavours to shew that the most essential doctrines of Christianity are to be found by the same method. Let a few instances of this method suffice. Thus the doctrine of the Trinity is to be found in the first verse of Genesis. If the Hebrew word ברא which is translated *created*, be examined, and if each of the three letters composing this word be taken as the initial of a separate word, we obtain the expressions אב *Son*, רוח *Spirit*, and בן *Father*. Upon the same principle we find the two persons of the Trinity in the words, "the stone which the builders refused is become the head stone of the corner" (Ps. cxviii, 22), inasmuch as the three letters composing the

word אבן *stone*, are to be divided into אב *Father*, סן *Son*. Orpheus, in his hymn on the night, described the Trinity of the New Testament in the words, νύξ, οὐρανός, αἰθήρ, for night which begets everything can only designate *the Father*; heaven, that olyphus which in its boundlessness embraces all things, and which proceeded from the night, signifies *the Son*; whilst ether, which the ancient poet also designates *fiery breath*, is the *Holy Ghost*. The name Jesus in Hebrew יהושע the πενταγράμματον yields the name יהוה *Jehovah*; and the ו which in the language of the Kabbalah is the symbol of fire or light, which St. Jerome, in his mystical exposition of the alphabet, has made the sign of the Λόγος. This mysterious name therefore contains a whole revelation, inasmuch as it shows us that Jesus is God himself, the Light or the *Logos*. Even the cross, which is the symbol of Christianity, is plainly indicated in the Old Testament, by the tree of life which God planted in the midst of the garden; by the praying attitude of Moses, when he raised his hands towards heaven in his intercession for Israel during the combat with Amalek; and by the tree which converted the bitter waters into sweet in the wilderness of Marah.<sup>24</sup>

The Treatise *de Verbo Mirifico* is, however, only an introduction to another work on the same subject which Reuchlin published twenty-two years later, entitled *De Arte Cabalistica*. Hagenau, 1516. This Treatise, like the first, is in the form of a dialogue between a Mohammedan named Marrianus, a Pythagorean Philosopher named Philolaus, and a Jewish doctor named Simon. The dialogue is held in Frankfort, where the Jew resides, to whom the Mohammedan and Pythagorean resort to be initiated into the mysteries of the Kabbalah. The whole is a more matured exposition and elaboration of the ideas hinted at in his first work.

<sup>24</sup> Comp. Franck, *Die Kabbalah oder die Religions Philosophie der Hebräer* übersetzt von Jellinek. Leipzig, 1844, p. 8, &c.

The *Kabbalah*, according to Beushlin, is a symbolical reception of Divine revelation; and a distinction is to be made between *Cabalici*, to whom belongs heavenly inspiration, their disciples *Cabalaai*, and their imitators *Cabalistae*. The design of the *Kabbalah* is to propound the relations of the absolute Creator to the creature. God is the Creator of all beings which emanated from him, and he implanted aspirations in them to attain actual communion with him. In order that feeble man might attain this communion, God revealed himself to mankind in various ways, but especially to Moses. This Divine revelation to Moses contains far more than appears on the surface of the Pentateuch. There is a recondite wisdom concealed in it which distinguishes it from other codes of morals and precepts. There are in the Pentateuch many pleonasm and repetitions of the same things and words, and as we cannot charge God with having inserted useless and superfluous words in the Holy Scriptures, we must believe that something more profound is contained in them, to which the *Kabbalah* gives the key.

This key consists in permutations, commutations, &c., &c. But this act of exchanging and arranging letters, and of interpreting for the edification of the soul the Holy Scriptures, which we have received from God as a divine thing not to be understood by the multitude, was not communicated by Moses to everybody, but to the elect, such as Joshua, and so by tradition it came to the seventy interpreters. This gift is called *Kabbalah*. God, out of love to his people, has revealed hidden mysteries to some of them, and these have found the living spirit in the dead letter; that is to say, the Scriptures consist of separate letters, visible signs which stand in a certain relation to the angels as celestial and spiritual emanations from God; and by pronouncing them, the latter also are affected. To a true *Kabbalist*, who has an insight into the whole connection of the terrestrial with the celestial, these

signs thus put together are the means of placing him in close union with spirits, who are thereby bound to fulfil his wishes.<sup>25</sup>

The extraordinary influence which Reuchlin's Kabbalistic Treatises exercised upon the greatest thinkers of the time and upon the early reformers may be judged of from the unmeasured terms of praise which they bestowed upon their author. The Treatises were regarded as heavenly communications, revealing new divine wisdom. Conrad Leontarius, writing to Wimpfeling on the subject, says—"I never saw anything more beautiful or admirable than this work (*i.e.*, *De Verbo Mirifico*), which easily convinces him who reads it: that no philosopher, whether Jew or Christian, is superior to Reuchlin." Aegidius, general of the Eremites, wrote to the holy Augustine "that Reuchlin had rendered him, as well as the rest of mankind, happy by his works, which had made known to all a thing hitherto unheard of." Philip Beroaldus, the younger, sent him word "that Pope Leo X had read his Pythagorean book greedily, as he did all good books; afterwards the Cardinal de Medici had done so, and he himself should soon enjoy it."<sup>26</sup> Such was the interest which this newly-revealed Kabbalah created among Christians, that not only learned men but statesmen and warriors began to study the oriental languages, in order to be able to fathom the mysteries of this theosophy.

1450-1498. Whilst the Kabbalah was gaining such high favour amongst Christians both in Italy and Germany, through the exertions of Mirandola and Reuchlin, a powerful voice was raised among the Jews against *the Sohar*, the very Bible of this theosophy. Elia del Medigo, born at Candia, then in Venetia, 1450, of a German literary family, professor of

<sup>25</sup> Comp. *The Life and Times of John Reuchlin*, by Francis Besham, p. 102, &c.

<sup>26</sup> *Vide Life of John Reuchlin*, p. 108.

philosophy in the University of Padua, teacher of Pico de Mirandola, and a scholar of the highest reputation both among his Jewish brethren and among Christians, impugned the authority of *the Sohar*. In his philosophical Treatise on the nature of Judaism as a harmonizer between religion and philosophy, entitled *An Examination of the Law* (בחינת הדין), which he wrote December 29, 1491, he puts into the mouth of an antagonist to the Kabbalah the following three arguments against the genuineness of the *Sohar*: 1, Neither the Talmud, nor the Gaonim and Rabbins knew anything of the *Sohar* or of its doctrines; 2, The *Sohar* was published at a very late period; and 3, Many anachronisms occur in it, inasmuch as it describes later Amoraic authorities as having direct intercourse with the Tanaite R. Simon b. Jochai who belongs to an earlier period.<sup>27</sup>

1522-1570. The voice of Elia del Medigo and others, however, had no power to check the rapid progress of the Kabbalah, which had now found its way from Spain and Italy into Palestine and Poland, and penetrated all branches of life and literature. Passing over the host of minor advocates and teachers, we shall mention the two great masters in Palestine, who formed two distinct schools, distinguished by the prominence which they respectively gave to certain doctrines of the Kabbalah. The first of these is Moses Cordovero, also called *Remak* = רמ"ק from the acrostic of his name קורדוואירו *R. Moses Cordovero*. He was born in Cordova, 1522, studied the Kabbalah under his learned brother-in-law, Solomon Aleavez, and very soon became so distinguished as a Kabbalist and author that his fame travelled to Italy, where his works were greedily bought. His principal works are: 1, An Introduction to the Kabbalah, entitled *A Sombre* or *Sweet*

<sup>27</sup> The *בחינת הדין* was first published in a collection of diverse Treatises, in Basle, 1629-31; and then in Vienna, 1833, with an elaborate philosophical commentary by T. S. Reggio. The arguments against *the Sohar* are in this edition, p. 43.

*Light* (אור נערב) first published in Venice, 1587, then in Cracow, 1647, and in Fürth, 1701; 2, Kabbalistic reflections and comments on ninety-nine passages of the Bible, entitled *The Book of Retirement* (ספר נרושין), published in Venice, 1543; and 3, A large Kabbalistic work entitled *The Garden of Pomegranates* (פרדס רמונים), which consists of thirteen sections or gates (שערים) subdivided into chapters, and discusses *the Sephiroth*, the Divine names, the import and significance of the letters, &c., &c. It was first published in Cracow, 1591. Excerpts of it have been translated into Latin by Bartolucci, *Bibliotheca Magna Rabbinica*, vol. iv, p. 231, &c., and Knorr von Rosenroth, *Tractatus de Anima ex libro Pardes Rimmonim* in his *Cabbala Denudata*, Sulzbach, 1677.<sup>28</sup>

The peculiar feature of Cordovero is that he is chiefly occupied with the scientific speculations of the Kabbalah, or *the speculative Kabbalah* (קבלה עיונית), as it is called in the modern terminology of this esoteric doctrine, in contradistinction to *the wonder-working Kabbalah* (קבלה מעשית), keeping aloof to a great extent from the extravagances which we shall soon have to notice. In this respect therefore he represents the Kabbalah in its primitive state, as may be seen from the following specimen of his lucubrations on the nature of the Deity. "The knowledge of the Creator is different from that of the creature, since in the case of the latter, knowledge and the thing known are distinct, thus leading to subjects which are again separate from him. This is described by the three expressions—cogitation, the cogitator and the cogitated object. Now the Creator is himself knowledge, knowing and the known object. His knowledge does not consist in the fact that he directs his thoughts to things

<sup>28</sup> For the other works of Cordovero, both published and unpublished, we must refer to Fürst, *Bibliotheca Judaica*, vol. i, p. 187, &c.; and Steinschneider, *Catalogus Libr. Hebr. in Bibliotheca Bodleiana*, col. 1793, &c.

without him, since in comprehending and knowing himself, he comprehends and knows everything which exists. There is nothing which is not united with him, and which he does not find in his own substance. He is the archetype of all things existing, and all things are in him in their purest and most perfect form; so that the perfection of the creatures consists in the support whereby they are united to the primary source of his existence, and they sink down and fall from that perfect and lofty position in proportion to their separation from him."<sup>29</sup>

1534-1572. The opposite to this school is the one founded by Isaac Luria or Loria, also called *Ari* = "ארי from the initials of his name יצחק ר' האשכנזי *R. Isaac Ashkanazi*. He was born at Jerusalem 1534, and, having lost his father when very young, was taken by his mother to Kahira, where he was put by his rich uncle under the tuition of the best Jewish master. Up to his twenty-second year he was a diligent student of the Talmud and the Rabbinic lore, and distinguished himself in these departments of learning in a most remarkable manner. He then lived in retirement for about seven years to give free scope to his thoughts and meditations, but he soon found that simple retirement from collegiate studies did not satisfy him. He therefore removed to the banks of the Nile, where he lived in a sequestered cottage for several years, giving himself up entirely to meditations and reveries. Here he had constant interviews with the prophet Elias, who communicated to him sublime doctrines. Here, too, his soul ascended to heaven whenever he was asleep, and in the celestial regions held converse with the souls of the great teachers of bygone days. When thirty-six years of age (1570) the Prophet Elias appeared to him again and told him to go to Palestine, where his successor was awaiting him. Obedient to the command, he went to Safet, where he gathered

<sup>29</sup> *Pardes Rimmonim* = The Garden of Pomegranates, 55 a.

round him ten disciples, visited the sepulchres of ancient teachers, and there, by prostrations and prayers, obtained from their spirits all manner of revelations, so much so that he was convinced he was the Messiah b. Joseph and that he was able to perform all sorts of miracles. It was this part of the Kabbalah, i.e., the ascetic and miraculous (קבלה מעשית), which Loria taught. His sentiments he delivered orally, as he himself did not write anything, except perhaps some marginal notes of a critical import in older books and MSS. His disciples treasured up his marvellous sayings, whereby they performed miracles and converted thousands to the doctrines of this theosophy.

1543-1620. The real exponent of Loria's Kabbalistic system is his celebrated disciple Chajim Vital, a descendant of a Calabrian family, who died in 1620 at the age of seventy-seven. After the demise of his teacher, Chajim Vital diligently collected all the MS. notes of the lectures which Loria's disciples had written down, from which, together with his own jottings, he produced the gigantic and famous system of the Kabbalah, entitled *the Tree of Life* (עץ החיים). This work, over which Vital laboured thirty years, was at first circulated in MS. copies, and every one of the Kabbalistic disciples had to pledge himself, under pain of excommunication, not to allow a copy to be made for a foreign land; so that for a time all the Codd. remained in Palestina. At last, however, this Thesaurus of the Kabbalah, which properly consists of six works, was published by J. Satanow at Zolkiev, 1772. New editions of it appeared in Korez, 1785; Sklow, 1800; Dobrowne, 1804; Stilikow, 1818; and Knorr von Rosenroth has translated into Latin a portion of that part of the great work which treats on *the doctrine of the metempsychosis* (הגלגולים).<sup>30</sup>

1558-1560. The circulation of Loria's work which gave

<sup>30</sup> For a description of the component parts of the עץ החיים as well as for an account of the sundry editions of the several parts, published at different times, we must refer to Fürst, *Bibliotheca Judaica*, vol. iii, pp. 479-481.

- an extraordinary impetus to the Kabbalah, and which gave rise to the new school and a separate congregation in Palestine, was not the only favourable circumstance which had arisen to advance and promulgate the esoteric doctrine. The *Sohar*, which since its birth had been circulated in MS., was now for the first time printed in Mantua, and thousands of people who had hitherto been unable to procure the MS. were thus enabled to possess themselves of copies.<sup>31</sup> It is, however, evident that with the increased circulation of these two Bibles of the Kabbalah, as the *Sohar* and Loria's *Etz Chajim* are called, there was an increased cry on the part of learned Jews against the doctrines propounded in them. Isaac b. Immanuel de Lates, the Rabbi of Pesaro, and the great champion for the Kabbalah, who prefixed a commendatory epistle to the *Sohar*, tells us most distinctly that some Rabbins wanted to prevent the publication of the *Sohar*, urging that it ought to be kept secret or be burned, because it tends to heretical doctrines.<sup>32</sup>

1571-1648. Of the numerous opponents to the Kabbalah which the *Sohar* and Loria's work called forth, Leo de Modena was by far the most daring, the most outspoken and the most powerful. This eminent scholar who is known to the Christian world by his celebrated *History of the Rites, Customs and Manners of the Jews*, which was originally written in Italian, published in Padua, 1640, and which has been translated into Latin, English, French, Dutch, &c., attacked the Kabbalah in two of his works. His first onslaught is on the doctrine of metempsychosis in his Treatise entitled *Ben David*. He composed this Treatise in 1635-36, at the request of David Finzi, of Egypt, and he demonstrates therein that this doctrine

81 An analysis of the *Sohar*, as well as a description of the different editions of it, are given in the second part of this Essay, p. 258, &c.

32 Comp. his Resp., ed. Vienna, 1860, p. 24, &c., נגד הרבנים אשר בקשו, לעכב הדפסת הוודר משעם גורות המלכות על שריפת החלמוד עוד יש מהם שהוסיפו סרה ואמרו כי העין בוודר יביא למנוח ולשיקן מען נניח או שריפת לבשר הקדש'

is of Gentile origin, and was rejected by the great men of the Jewish faith in bygone days, refuting at the same time the philosophico-theological arguments advanced in its favour.<sup>33</sup> It is, however, his second attack on this esoteric doctrine, in his work entitled *The Roaring Lion* (אֵרִי נֹהֵם), which is so damaging to the Kabbalah. In this Treatise—which Leo de Modena composed in 1639, at the advanced age of sixty-eight, to reclaim Joseph Chamiz, a beloved disciple of his, who was an ardent follower of the Kabbalah—he shows that the books which propound this esoteric doctrine, and which are palmed upon ancient authorities, are pseudonymous; that the doctrines themselves are mischievous; and that the followers of this system are inflated with proud notions, pretending to know the nature of God better than anyone else, and to possess the nearest and best way of approaching the Deity.<sup>34</sup>

1623. The celebrated Hebraist, Joseph Solomon del Medigo (born 1591, died 1637), a contemporary of the preceding writer, also employed his vast stores of erudition to expose this system. Having been asked by R. Serach for his views of the Kabbalah, del Medigo, in a masterly letter, written in 1623, shows up the folly of this esoteric doctrine, and the unreasonableness of the exegetical rules, whereby the followers of this system pretend to deduce it from the Bible.<sup>35</sup>

1635. We have seen that the information about the Kabbalah, which Mirandola and Reuchlin imparted to Christians, was chiefly derived from the writings of Recanti and Gikatilla. Now that the *Sohar* had been published, Joseph de Voisin

33 This Treatise is published in the collection entitled מֵסֵד וּקְיִים by Eliezar Ashkanazi, Frankfort-on-the-Maine, 1854.

34 The אֵרִי נֹהֵם was published by Dr. Julius Fürst, Leipzig, 1840. Leo de Modena's relation to the Kabbalah, the Talmud and Christianity is shown in an elaborate Introduction by Geiger in the מאמר מִן יְצִרָה Berlin, 1856. See also the article LEO DE MODENA, in Alexander's edition of Kitto's *Cyclopædia of Biblical Literature*, vol. ii, p. 811.

35 This Epistle, together with a German translation and learned notes, has been published by Geiger in his collection of sundry treatises, entitled *Melo Chofnazim*. Berlin, 1840.

determined to be the first to make some portions of it accessible to those Christian readers who did not understand the Aramaic in which this Thesaurus is written. Accordingly he translated some extracts of the *Sohar* which treat of the nature of the human soul.<sup>36</sup>

1652-1654. Just at the very time when some of the most distinguished Jews exposed the pretensions of the Kabbalah, and denounced the fanciful and unjustifiable rules of interpretation whereby its advocates tried to evolve it from the letters of the revealed law, the celebrated Athanasius Kircher, in a most learned and elaborate treatise on this subject, maintained that the Kabbalah was introduced into Egypt by no less a person than the patriarch Abraham; and that from Egypt it gradually issued all over the East, and intermixed with all religions and systems of philosophy. What is still more extraordinary is that this learned Jesuit, in thus exalting the Kabbalah, lays the greatest stress on that part of it which developed itself afterwards, viz., the combinations, transpositions and permutations of the letters, and does not discriminate between it and the speculations about the *En Soph*, the *Sephiroth*, &c., which were the original characteristics of this theosophy.<sup>37</sup> The amount of Eastern lore, however, which Kircher has amassed in his work will always remain a noble monument to the extensive learning of this Jesuit.

1645-1676. The wonder-working or practical branch of the Kabbalah (קבלה מעשית), as it is called, so elaborately propounded and defended by Kircher, which consists in the transpositions of the letters of the sundry divine names, &c., and which as we have seen constituted no part of the original Kabbalah, had now largely laid hold on the minds and fancies

36 Comp. Disputatio Cabalistica R. Israel filii Mosis de animâ, &c., adjectis commentariis ex *Zohar*. Paris, 1635.

37 Kircher's Treatise on the Kabbalah is contained in his stupendous work, entitled *Œdipus Ægyptiacus*, vol. ii, pp. 209-360. Rome, 1635.

of both Jews and Christians, and was producing among the former the most mournful and calamitous effects. The famous Kabbalist, Sabbatai Zevi, who was born in Smyrna, July, 1641, was the chief actor in this tragedy. When a child he was sent to a Rabbinic school, and instructed in the Law, the Mishna, the Talmud, the Midrashim, and the whole cycle of Rabbinic lore. So great were his intellectual powers, and so vast the knowledge he acquired, that when fifteen he betook himself to the study of the Kabbalah, rapidly mastered its mysteries, became peerless in his knowledge of "those things which were revealed and those things which were hidden;" and at the age of eighteen obtained the honourable appellation *sage* (סוף), and delivered public lectures, expounding the divine law and the esoteric doctrine before crowded audiences. At the age of twenty-four he gave himself out as the Messiah, the Son of David, and the Redeemer of Israel, pronouncing publicly the Tetragrammaton, which was only allowed to the high priests during the existence of the second Temple. Though the Jewish sages of Smyrna excommunicated him for it, he travelled to Salonica, Athens, Morea and Jerusalem, teaching the Kabbalah, proclaiming himself as the Messiah, anointing prophets and converting thousands upon thousands. So numerous were the believers in him, that in many places trade was entirely stopped; the Jews wound up their affairs, disposed of their chattels and made themselves ready to be redeemed from their captivity and led by Sabbatai Zevi back to Jerusalem. The consuls of Europe were ordered to enquire into this extraordinary movement, and the governors of the East reported to the Sultan the cessation of commerce. Sabbatai Zevi was then arrested by order of the Sultan, Mohammed IV, and taken before him at Adrianople. The Sultan spoke to him as follows—"I am going to test thy Messiahship. Three poisoned arrows shall be shot into thee, and if they do not kill thee, I too will believe that thou art the

Messiah." He saved himself by embracing Islamism in the presence of the Sultan, who gave him the name *Effendi*, and appointed him *Kapidgi Bashi*. Thus ended the career of the Kabbalist Sabbatai Zevi, after having ruined thousands upon thousands of Jewish families.<sup>38</sup>

1677-1684. Whether the learned Knorr Baron von Rosenroth knew of the extravagances of Sabbatai Zevi or not is difficult to say. At all events this accomplished Christian scholar believed that Simon b. Jochai was the author of the *Sohar*, that he wrote it under divine inspiration, and that it is most essential to the elucidation of the doctrines of Christianity. With this conviction he determined to master the difficulties connected with the Kabbalistic writings, in order to render the principal works of this esoteric doctrine accessible to his Christian brethren. For, although Lully, Mirandola, Reuchlin and Kircher had already done much to acquaint the Christian world with the secrets of the Kabbalah, none of these scholars had given translations of any portions of the *Sohar*.

Knorr Baron von Rosenroth, therefore put himself under the tuition of R. Meier Stern, a learned Jew, and with his assistance was enabled to publish the celebrated work entitled the *Unveiled Kabbalah* (KABBALA DENUDATA), in two large volumes, the first of which was printed at Sulzbach, 1677-78, and the second at Frankfort-on-the-Maine, 1684, giving a Latin translation of the Introduction to and the following portion of the *Sohar*—the *Book of Mysteries* (ספר דעניעותא); the *Great Assembly* (אדרא רבא); the *Small Assembly* (אדרא זוטא); Joseph Gikatilla's *Gate of Light* (שער אורה); the *Doctrine of Metempsychosis* (הגלגולים), and the *Tree of Life* (עץ חיים), of Chajim Vital; the *Garden of Pomegranates* (פרדס רימונים), of Moses Cordovero; the *House of the Lord* (בית אלהים), and the *Gate of Heaven* (שער השמים), of

<sup>38</sup> Comp. Jost, *Geschichte des Judenthums und seiner Secten*, vol. iii, p. 153, &c. Leipzig, 1859.

Abraham Herera; the *Valley of the King* (עמק המלך), of Naphtali b. Jacob; the *Vision of the Priest* (מראה כהן), of Issachar Beer b. Naphtali Cohen, &c., &c., with elaborate annotations, glossaries and indices. The only drawback to this gigantic work is that it is without any system, and that it mixes up in one all the earlier developments of the Kabbalah with the later productions. Still the criticism passed upon it by Pudeus, that it is a "confused and obscure work, in which the necessary and the unnecessary, the useful and the useless are mixed up and thrown together as it were into one chaos,"<sup>39</sup> is rather too severe; and it must be remembered that if the *Kabbala Denudata* does not exhibit a regular system of this esoteric doctrine, it furnishes much material for it. Baron von Rosenroth has also collected all the passages of the New Testament which contain similar doctrines to those propounded by the Kabbalah.

1758-1768. Amongst the Jews, however, the pretensions and consequences of the Kabbalistic Pseudo-Messiah, Sabbatai Zevi, and his followers, produced a new era in the criticism of the *Sohar*. Even such a scholar and thorough Kabbalist as Jacob b. Zevi of Emden, or *Jabez* (יעב"ץ), as he is called from the acrostic of his name (יעקב בן צבי), maintains in his work, which he wrote in 1758-1763, and which he entitled *The Wrapper of Books*, that with the exception of the kernel of the *Sohar* all the rest is of a late origin.<sup>40</sup> He shows that (1) The *Sohar* misquotes passages of Scripture, misunderstands the Talmud, and contains some rituals which were ordained by later Rabbinic authorities (פוסקים). (2) Mentions the crusades against the Mohammedans. (3) Uses

<sup>39</sup> Confusam et obscuram opus, in quo necessaria cum non necessariis, utilia cum inutilibus, confusa sunt, et in unam velut chaos conjecta. *Introductio in Historiam Philosophiae Hebraeorum*. Halle, 1702. Buddeus gives in this Introduction (p. 232, &c.), a detailed description of the *Kabbala Denudata*.

<sup>40</sup> The *מסעדות הספרים* of Jabez was published at Altona, 1768. A thorough critique of it is given by Graetz, *Geschichte der Juden*, vol. vii, p. 494, &c.

the philosophical terminology of Ibn Tibbon's Hebrew Translation of Maimonides' *More Nebuchim*, and borrows the figure of Jehudah Ha-Levi's Khosari, that "Israel is the heart in the organism of the human race, and therefore feels its sufferings more acutely" (*Khosari*, ii, 36, with *Sohar*, iii, 221 b, 161 a); and (4) Knows the Portuguese and North Spanish expression *Esnoga*.

1767. Whilst the Jews were thus shaken in their opinion about the antiquity of the *Sohar*, learned Christians both on the Continent and in England maintained that Simon b. Jochai was the author of the Bible of the Kabbalah, and quoted its sentiments in corroboration of their peculiar views. Thus Dr. Gill, the famous Hebraist and commentator, in his work on *the Antiquity of the Hebrew Language*, adduces passages from the *Sohar* to shew that the Hebrew vowel points were known A.D. 120, at which time he tells us "lived Simon ben Jochai, a disciple of R. Akiba, author of the *Zohar*."<sup>41</sup>

1830. Allen, in the account of the Kabbalah in his *Modern Judaism*, also premises the antiquity of the *Sohar*. Taking this pseudonym as the primary source of the primitive Kabbalah, Allen, like all his predecessors, mixes up the early mysticism and magic, as well as the later abuse of the Hagadic rules of interpretation, denominated *Gematria*, *Notaricon*, *Ziruph*, &c., which the Kabbalists afterwards appropriated, with the original doctrines of this theosophy.<sup>42</sup>

1843. Even the erudite Professor Franck, in his excellent work *La Kabbale* (Paris, 1843), makes no distinction between the *Book Jetzira* and the *Sohar*, but regards the esoteric doctrines of the latter as a development and continuation of the tenets propounded in the former. He moreover main-

<sup>41</sup> Comp. *A Dissertation concerning the Antiquity of the Hebrew Language, Letters, Vowel-points and Accents*. By John Gill, D.D. London, 1787.

<sup>42</sup> *Modern Judaism*, by John Allen, p. 67-96, 2nd edition. London, 1830.

tains that the *Sohar* consists of ancient and modern fragments, that the ancient portions are the *Book of Mysteries* (ספרא דעניעותא), the *Great Assembly* or *Idra Rabba* (אדרא רבא), and the *Small Assembly* or *Idra Suta* (אדרא זוטא), and actually proceeds from the school of R. Simon b. Jochai, while several of the other parts belong to a subsequent period, but not later than the seventh century; that the fatherland of the *Sohar* is Palestine; that the fundamental principles of the Kabbalah, which were communicated by R. Simon b. Jochai to a small number of his disciples, were at first propagated orally; that they were then from the first to the seventh century gradually edited and enlarged through additions and commentaries, and that the whole of this compilation, completed in the seventh century, owing to its many attacks on the Asiatic religions, was kept secret till the thirteenth century, when it was brought to Europe. To fortify his opinions about the antiquity of the Kabbalah, Franck is obliged to palm the doctrine of the *Sephiroth* upon passages in the Talmud in a most unnatural manner. As this point, however, has been discussed in the second part of this Essay, (*vide supra*, p. 281, etc.) there is no necessity for repeating the arguments here.<sup>43</sup> Still Franck's valuable contribution to the elucidation of the *Sohar* will always be a welcome aid to the student of this difficult book.

1845. A new era in the study of the Kabbalah was created by the researches of M. H. Landauer, who died February 3rd, 1841, when scarcely thirty-three years of age. This learned Rabbi, whose premature death is an irreparable loss to literature, in spite of constitutional infirmities, which occasioned him permanent sufferings during the short period of his earthly career, devoted himself from his youth to the

<sup>43</sup> Franck's *La Kabbale* has been translated into German, with notes and corrections by the learned and indefatigable Adolph Jellinek; *Die Kabbala oder die Religions-Philosophie der Hebräer*. Leipzig, 1844.

study of Hebrew, the Mishna, the Talmud, and the rich stores of Jewish learning. He afterwards visited the universities of Munich and Tübingen, and in addition to his other researches in the department of Biblical criticism, determined to fathom the depths of the Kabbalah. It was this scholar who, after a careful study of this esoteric doctrine, for the first time distinguished between the ancient mysticism of the Gaonim period and the real Kabbalah, and shewed that "the former, as contained in the *Alphabet of R. Akiba* (אותיות דר' עקיבא), the *Dimensions of the Deity* (שיעור קומה), the *Heavenly Mansions* (דיכלות), and even the *Book of Jetzira* (ספר צירה) and similar documents, essentially differ from the later Kabbalah, inasmuch as it knows nothing about the so-called *Sephiroth* and about the speculations respecting the nature of the Deity, and that, according to the proper notions of the Kabbalah, its contents ought to be described as *Hagada* and not as Kabbalah."<sup>44</sup> As to the *Sohar*, Landauer maintains that it was written by Abraham b. Samuel Abulafia towards the end of the second half of the thirteenth century. Landauer's views on the Kabbalah and on the authorship of the *Sohar*, as Steinschneider rightly remarks, are all the more weighty and instructive because he originally started with opinions of an exactly opposite character. (*Jewish Literature*, p. 299.)

1849. D. H. Joel, Rabbi of Sheversenz, published in 1849 a very elaborate critique on Franck's *Religious Philosophy of the Sohár*, which is an exceedingly good supplement to Franck's work, though Joel's treatise is of a negative character, and endeavours to demolish Franck's theory without propounding another in its stead. Thus much, however, Joel positively states, that though the *Sohar* in its present form

<sup>44</sup> The Literary Remains of Landauer, comprising his researches on the Kabbalah, have been published in the *Literaturblatt des Orients*, vol. vi, p. 178, &c.

could not have been written by R. Simon b. Jochai, and though the author of it may not have lived before the thirteenth century, yet its fundamental doctrines to a great extent are not the invention of the author, but are derived from ancient Jewish sources, either documentary or oral.<sup>45</sup>

1851. After a lapse of seven years Jellinek fulfilled the promise which he made in the preface to his German translation of Franck's *la Kabbale ou la philosophie religieuse des Hébreux*, by publishing an Essay on the authorship of the *Sohar*. And in 1851 this industrious scholar published a historico-critical Treatise, in which he proves, almost to demonstration, that Moses b. Shem Tob de Leon is the author of the *Sohar*.<sup>46</sup> Several of his arguments are given in the second part of this Essay (*vide supra*, p. 272, &c.), in our examination of the age and authorship of the *Sohar*.

1852. Whilst busily engaged in his researches on the authorship and composition of the *Sohar*, Jellinek was at the same time extending his labours to the history of the Kabbalah generally, the results of which he communicated in two parts (Leipzig, 1852), entitled *Contributions to the History of the Kabbalah*. The first of these parts embraces (1) the study and history of the *Book Jetzira*, (2) diverse topics connected with the *Sohar*, and (3) Kabbalistic doctrines and writings prior to the *Sohar*; whilst the second part (1) continues the investigation on the Kabbalistic doctrines and writings prior to the *Sohar*, as well as (2) discusses additional points connected with the *Sohar*, and (3) gives the original text to the history of the Kabbalah.<sup>47</sup>

1853. Supplementary to the above works, Jellinek pub-

<sup>45</sup> *Die Religions-philosophie des Sohar*, Von D. H. Joel. Leipzig, 1849, p. 72, &c.

<sup>46</sup> *Moses Ben Schem-Tob de Leon und sein Verhältniss zum Sohar*, Von Adolph Jellinek. Leipzig, 1851.

<sup>47</sup> *Beiträge zur Geschichte der Kabbala*, Von Adolph Jellinek, first and second parts. Leipzig, 1852.

lished, twelve months afterwards, the first part of a *Selection of Kabbalistic Mysticism*, which comprises the Hebrew texts of (1) *The Treatise on the Emanations* (מסכת אצילות), (2) *The Book of Institutions* (ספר העיצו), by R. Chamai Gaon, (3) *The Rejoinder of R. Abraham b. Samuel Abulafia to R. Solomon b. Adereth*, and (4) The Treatise entitled *Kether Shem Tob* (כתר שם טוב), by R. Abraham of Cologne. These Treatises, which are chiefly taken from MSS. at the public Libraries in Paris and Hamburg, are preceded by learned Introductions discussing the characteristics, the age, the authorship and the sources of each document, written by the erudite editor.<sup>48</sup> May Dr. Jellinek soon fulfil his promise, and continue to edit these invaluable contributions to the Kabbalah, as well as publish his own work on the import of this esoteric doctrine.

1856. Dr. Etheridge, in his *Manual on Hebrew Literature*, entitled *Jerusalem and Tiberias*, devotes seventy pages to a description of the Kabbalah. It might have been expected that this industrious writer, who draws upon Jewish sources, would give us the result of the researches of the above-named Hebraists. But Dr. Etheridge has done no such thing;—he confuses the import of the *Book Jetzira*, the *Maase Bereshith* (מעשה בראשית) and the *Maase Merkaba* (מעשה מרכבה), with the doctrines of the Kabbalah; and assigns both to the *Book Jetzira* and to the *Sohar* an antiquity which is contrary to all the results of modern criticism. The following extract from his work will suffice to shew the correctness of our remarks:—

“To the authenticity of the *Zohar*, as a work of the early Kabbalistic school, objections have indeed been made, but they are not of sufficient gravity to merit an extended investigation. The opinion that ascribes it as a *pseudo* fabrication to Moses de Leon in the thirteenth century, has, I imagine, but few believers among the learned in this subject in our own day. The references to Shemun ben Yochai and the Kabala in the Talmud, and abundant internal evidence found in the

<sup>48</sup> *Auswahl Kabbalistischer Mystik*, part 1. Leipzig, 1853.

book itself, exhibit the strongest probability, not that Shemun himself was the author of it, but that it is the fruit and result of his personal instructions, and of the studies of his immediate disciples."<sup>49</sup>

Now the bold assertion that there are few believers among the learned of our own time in *the pseudo* fabrication of the *Sohar* by Moses de Leon in the thirteenth century, when such learned men as Zunz,<sup>50</sup> Geiger,<sup>51</sup> Sachs,<sup>52</sup> Jellinek<sup>53</sup> and a host of other most distinguished Jewish scholars, regard it almost as an established fact; as well as the statement that there are *references to the Kabbalah in the Talmud*, can only be accounted for from the fact that Dr. Etheridge has not rightly comprehended the import of the Kabbalah, and that he is entirely unacquainted with the modern researches in this department of literature.

1857. The elaborate essay on Jewish literature by the learned Steinschneider, which appeared in *Ersch and Gruber's Encyclopædia*, and which has been translated into English, contains a most thorough review of this esoteric doctrine. It is, however, to be remarked that the pages devoted to this subject give not so much an analysis of the subject, as a detailed account of its literature; and, like all the writings of this excellent scholar, are replete with most useful information.<sup>54</sup>

1858-1861. A most instructive and thorough analysis of the *Sohar* appeared in a Jewish periodical, entitled *Ben Chananja*, volumes i, ii, iii, and iv.<sup>55</sup> This analysis was

<sup>49</sup> *Jerusalem and Tiberias; Sora and Cordova*, by J. W. Etheridge, M.A., Doctor in Philosophy. London, 1856, p. 314.

<sup>50</sup> *Die Gottesdienstlichen Vorträge der Juden*. Berlin, 1831, p. 405.

<sup>51</sup> *Melo Chafnaji*m. Berlin, 1840. Introduction, p. xvii.

<sup>52</sup> *Die Religiöse Poesie der Juden in Spanien*. Berlin, 1845, p. 327.

<sup>53</sup> *Moses Ben Schem Tob de Leon*. Leipzig, 1851.

<sup>54</sup> *Jewish Literature*, from the German of M. Steinschneider. London, 1857, pp. 104-122; 249-309.

<sup>55</sup> *Versuch einer umständlichen Analyse des Sohar*, von Schuldirektor Ignatz Stern, in *Ben Chananja, Monatschrift für jüdische Theologie*, vol. iv. Szegedin, 1858-1861.

made by Ignatz Stern, who has also translated into German those portions of the *Sohar* which are called *the Book of Mysteries*, *the Great Assembly*, and *the Small Assembly*, and has written a vocabulary to the *Sohar*. The recent death of this great student in the Kabbalah is greatly to be lamented. With the exception of the analysis of the *Sohar*, all his works are in MS.; and it is to be hoped that the accomplished Leopold Löw, chief Rabbi of Szegedin, and editor of the *Ben Chananja*, who was the means of bringing the retiring Ignatz Stern into public, will publish his literary remains.

1859. As the Kabbalah has played so important a part in the mental and religious development, and in the history of the Jewish people, the modern historians of the Jews, in depicting the vicissitudes of the nation, felt it to be an essential element of their narrative, to trace the rise and progress of this esoteric doctrine. Thus the learned and amiable Dr. Jost devotes seventeen pages, in his history of the Jews, to this theosophy.<sup>56</sup>

1863. No one, however, has prosecuted with more thoroughness, learning and impartiality the doctrines, origin and development of this esoteric system than the historian Dr. Graetz. He, more than any of his predecessors since the publication of Landauer's literary remains, has in a most masterly manner carried out the principle laid down by this deceased scholar, and has distinguished between mysticism and the Kabbalah. Graetz has not only given a most lucid description of the doctrines and import of the Kabbalah in its original form, but has proved to demonstration, in a very elaborate treatise, that Moses de Leon is the author of the *Sohar*.<sup>57</sup> Whatever may be the shortcomings of this portion

<sup>56</sup> *Geschichte des Judenthums und seiner Secten*, Von Dr. J. M. Jost, vol. iii, p. 60-81. Leipzig, 1859.

<sup>57</sup> *Geschichte der Juden*, Von Dr. H. Graetz, vol. vii, pp. 73-87; 442-459; 487-507. Leipzig, 1863.

of Graetz's history, no one who studies it will fail to learn from it the true nature of this esoteric doctrine.

1863. Leopold Löw, the chief Rabbi of Szegedin, whose name has already been mentioned in connection with Ignatz Stern, published a very lengthy review of Graetz's description of the Kabbalah. Though the Rabbi laboured hard to shake Dr. Graetz's position, yet, with the exception perhaps of showing that the Kabbalah was not invented in opposition to Maimonides' system of philosophy, the learned historian's results remain unassailed. Moreover, there is a confusion of mysticism with the Kabbalah through many parts of Dr. Löw's critique.<sup>58</sup>

We are not aware that anything has appeared upon this subject since the publication of Graetz's researches on the Kabbalah and Löw's lengthy critique on these researches. Of course it is not to be supposed that we have given a *complete* history of the Literature on this theosophy; since the design of this Essay and the limits of the volume of "the Literary and Philosophical Society's Transactions," in which it appears, alike preclude such a history. This much, however, we may confidently say, that nothing has been omitted which essentially bears upon the real progress or development of this esoteric doctrine.

Several works, in which lengthy accounts of the Kabbalah are given, have been omitted, because these descriptions do not contribute anything very striking in their treatment of the Kabbalah, nor have they been the occasion of any remarkable incidents among the followers of this system.

Among the works thus omitted are Buddeus' *Introduction to the History of Hebrew Philosophy*; <sup>59</sup> Basnage's *History of the Jews*,<sup>60</sup> where a very lengthy account is given of the

<sup>58</sup> Comp. *Ben Chananja Monatschrift für jüdische Theologie*, vol. vi, pp. 725-733; 741-747; 785-791; 805-809; 821-828; 933-942. Szegedin, 1863.

<sup>59</sup> *Introductio ad Hist. Philosoph. Ebraeorum*. Halle, 1702.

<sup>60</sup> *Histoire des Juifs*, English translation, pp. 184-256. London, 1708.

Kabbalah, without any system whatever, chiefly derived from the work of Kircher; Wolf's account of the Jewish Kabbalah, given in his elaborate Bibliographical Thesaurus of Hebrew Literature, where a very extensive catalogue is given of Kabbalistic authors;<sup>61</sup> and Molitor's *Philosophy of History*.<sup>62</sup>

We sincerely regret to have omitted noticing Munk's description of the Kabbalah.<sup>63</sup> For, although he does not attempt to separate the gnostic from the mystical elements, which were afterwards mixed up with the original doctrines of this esoteric system, yet no one can peruse the interesting portion treating on the Kabbalah and the *Sohar* without deriving from it information not to be found elsewhere.

61 *De Cabbala Judeorum*, in his *Bibliotheca Hebraea*, vol. ii, pp. 1191-1247. Hamburg, 1728.

62 *Philosophie der Geschichte oder über die Tradition*, vol. iii. Münster, 1839.

63 *Mélanges de Philosophie Juive et Arabe*, p. 275, &c. Paris, 1859.

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## GLOSSARY.

## 4

**אדם העליון** *the Heavenly Man*. I. One of the names of the first *Sephira*, 188, 192, 196. II. An appellation of the entire *Sephiric* decade, 204.

אדם קדמון *the Primordial, the Archetypal man*,  
one of the names of the Sephiric decade,  
195.

אָדמא (=*Edpa*), a seat, a sitting, an assembly, the assembly of R. Simon b. Jachanan's disciples, which at its commencement was rather numerous, and hence obtained the name אָדמא רבא *the Great Assembly*. In the course of time, however, death removed many of them, and only left a few, to whom R. Simon continued to communicate the secrets of the Kabbalah. These few surviving disciples, at the close of their Rabbīn's life, are designated אָדמא קטנא *the Small Assembly*. Metonymically the two expressions אָדמא רבא and אָדמא קטנא denote the two parts of the *Sohar* which purport to give the Kabbalistic revelations communicated by R. Simon to the said two assemblies, 262, 263.

אֲנִי I am (Exod. iii, 14), the divine name corresponding to the first *Sephira*, 188.

אופנים (plural of אופן), translated *wheels* in the English version (Ezek. i, 20), is taken by the Jewish Rabbins to denote a *distinct order of angels*, just as Cherubim and Seraphim. Hence the Talmud explains Exod. xx, 20, by "thou shalt not make the likeness of those ministering servants who serve before me in heaven, viz., Ophanim, Seraphim, sacred Chajoth and missive angels." (לא תעשה כדמות שמים)

אֲשַׁמְרָךְ לִנְי בְּרוּם כֵּן אֹסֶנִים וְתִסִּים חֻזָּה  
 רוֹשֵׁי הָ-שָׂנָה, 24 b.)  
*Ophan*, the prince of this world, regarded by the ancient sages as identical with the angel *Sandalphon*, מְטַטְרֹן = συνδάλφως co-brother or fellow-companion of the angel Metatron. (Comp. Rashi on Ezek. i, 20.) In the Kabbalah this name of the angelic host answers to the second *Sephira*, 188.

the tree, the Kabbalistic form in which the ten *Sephiroth* are represented, 197, 108.

*ἢ the not-existent, an appellation of the Deity in his absolute nature. 186.*

הי אין *the boundless*, an appellation of the Deity viewed apart from the creation, 186, 193.

in the *Mighty One*, the divine name answering to the fourth *Sephira*, 189.

the *Mighty Living One*, the divine name answering to the ninth *Sephira*, 190.

**אלה** the Almighty, the divine name answering to the fifth *Sephira*, 189.

אֵלֹהִים the Omnipotent, the divine name  
answering to the sixth *Sephira*, 189.

אומות אלודים צבאות the Omnipotent Sabaoth, the  
divine name answering to the eighth  
Sephira, 190.

נפנפן *fuces*, the three aspects, viz., the Intellectual, Moral and Material worlds in which the *En Soph* manifested himself, 196, 197. מפרסן *Macroprosepon*, one of the names of the first *Sephira*, 188, whilst מפרסן *Microprosepon*, is the transcendent Being operating upon the earth, and denotes the *En Soph* as immanent in the creation, or as necessarily working in the universe, which lies in the essence of his creativeness.

**מִשְׁכָּן** (= *specularia*, with prosthetic נ), *mirror*. **מִשְׁכָּן נֹדֵם** the luminous mirror, applied to the extraordinary faculty of prophetic knowledge possessed by the human soul, which was vouchsafed to Moses in an exceptional degree, 217.

המראה הנורא *the non-luminous mirror*,  
applied to the ordinary faculty of know-  
ledge, 217.

אֲרִיִּלִּים (plural of אֲרִיִּל) which also occurs in Isa. xxxiii, 7, denotes in ancient Jewish literature an order of angels, just as Cherubim, Seraphim, &c., are the names of other angelic classes. Thus the Talmud remarks אֲרִיִּלִּים מְצוּקִים חֲחוּ בְּתוֹרַת הַקֹּדֶשׁ וְזֶה הַקֹּדֶשׁ הָאֲרִיִּלִּים הֵם הַמְצוּקִים וּשְׂבִיחָה אֲרִיִּל הַקֹּדֶשׁ the angelic order *Arelim* and the most distinguished of men caught at the sacred ark, the angelic order *Arelim* prevailed, and the sacred ark was captured. (*Kethaboth*, 104 a.) Hence Rashi, Kimchi and

others explain אַמְלִים in Isa. xxxiii, 7, by *angels*. In the Kabbalah this name answers to the third *Sephira*, 188.  
אִמְסִי (Ps. civ, 4) the names of an order of angels answering to the ninth *Sephira*, 190.

## ב

בִּינָה *intelligence*. I. Name of the third *Sephira*, 188, 193, 195, 197, 198. II. Appellation of the intellectual world as represented by the first triad of the *Sephiroth*, 199.

בְּנֵי אֱלֹהִים *Sons of God* (Gen. vi, 2), which is taken by the ancient Jews to denote *angels*, is in the Kabbalah a distinctive order of celestial beings answering to the eighth *Sephira*, 190.

## ג

גְּבוּרָה *strength, judicial power*, one of the names of the fifth *Sephira*, 189, 194.

גְּדֻלָּה *greatness*, one of the names of the fourth *Sephira*, 189, 194.

גִּמְטְרִיָּה is a metathesis of גִּמְטְרִיָּה = γράμμα, γραμμία, or γραμματεία, in the sense of letters representing numbers, and is technically used to express an exegetical rule, according to which every letter of a word is reduced to its numerical value, and the word is explained by another word of the same value, 229, 242, 298, 294 note.

## ד

דִּיקוּקָה (= εἰκὼν with ד prefixed), *the image*, one of the appellations of the world of emanations, or *Atzilatic World*, so called because of its proceeding immediately from the *En Soph*, 204.

דִּין *justice*, one of the names of the fifth *Sephira*, 189.

## ה

הַדְרָה *splendour*, name of the eighth *Sephira*, 190, 104, 196, 197, 198.

## ו

וְחַיִּים (plural of וָחַי) = ζῶα, which is rendered in our English version (Ezek. i, 5) by *living beings*, is regarded by Jewish tradition as denoting *celestial beings, a genus, or distinct order of angelic beings* (see אִמְסִי in this Glossary); and in the

Kabbalah this name answers to the first *Sephira*, 188.

חֲלִיפָה *interchange of letters*, an exegetical rule explained in the article חֲסוּדָה of the *Glossary*.

חֲכָמָה *wisdom*, name of the second *Sephira*, 188, 193, 195, 197, 198.

חֲכָמָה *hidden wisdom*, is another name for the esoteric doctrine of the Kabbalah; it is so called because its wisdom is hidden from those who have not been instructed therein, 184.

חֲסָדָה *grace*, an abbreviation of חֲסָדָה *hidden wisdom*, denoting the Kabbalah, 184.

חַסֵּד *mercy, love*, one of the names of the fourth *Sephira*, 189, 196, 197, 198.

חֲסִידִים plur. חֲסִידִים which the Septuagint and Vulgate render by ἡλεκτρον, ἤλεκτρον, a brilliant metallic substance compounded of four parts gold and one part silver, (Paus. v. 12, 6; Pliny, xxxiii, 4 or 23), and the authorised version by *amber* (Ezek. i, 4), is taken by the ancient Hebrews to denote a *fire-speaking being*, belonging to an angelic genus, just as Cherubim, Seraphim, &c., denote distinct classes of angels. Accordingly, the word is a compound of חָשׁ = אֵשׁ, *fire*, and חָסִיד, *speaking*. Hence it is related in the Talmud בְּחִינַת שְׁחִיָּה דְּרוּשׁ בְּמַעֲשֵׂה מִכְנֹה וְחִידָה מִבֵּין בְּחִשָּׁל וְיָצָא אֵשׁ מִחֲשָׁכִים וְאֶחָד מֵעֵשֶׂה בְּחִינַת שְׁחִיָּה דְּרוּשׁ בְּמַעֲשֵׂה מִכְנֹה וְחִידָה מִבֵּין בְּחִשָּׁל וְיָצָא אֵשׁ מִחֲשָׁכִים וְאֶחָד מֵעֵשֶׂה

“Once upon a time a young man was studying the vision of Ezekiel, and was dwelling upon the angel *Chashmal*, when fire proceeded from *Chashmal* and consumed him.” (*Chagiga*, 13 u.) Some other Talmudic doctors, though also taking it to denote “*fire-speaking angel*,” regard the word as a compound of חָשׁ *silent* and חָסִיד *speaking*, and submit that this angelic genus are so called from the fact that at times they are *quiet* and other times they *talk*; מֵאֵי חֲסִידִים חָשׁ כִּי אָמַר רַבִּי יְהוֹדָה; חִידָה אֵשׁ מִמְּלֹחֶה כְּמִתְנִיחָה הָיָה עֲדֵינָם מִמְּלֹחֶה בְּשִׁעָה שְׁחִיבֹר יוֹצֵא מִי חֲדוּשׁ בְּרוּךְ הוּא חֲשׁוּת, בְּשִׁעָה שֶׁאֵין חֲדוּשׁ יוֹצֵא מִי חֲדוּשׁ בְּרוּךְ הוּא “they are quiet when the behest proceeds from the mouth of the Holy One, blessed be he, and they talk or sing praises when no behest proceeds from the Holy One, blessed be he.” (*Chagiga*, 13 a b.) In the Kabbalah the name of this angelic order answers to the fourth *Sephira*, 189.

יָה *Jah*, (Isa. xvi, 4), the divine name answering to the second *Sephira*, 188.

**יהוה** *Jehovah*, the divine name answering to the third *Sephira*, 188.

**יהוה שבאוה** *Jehovah Sabaoth*, the divine name answering to the seventh *Sephira*, 189.

**יסוד** *foundation*, name of the ninth *Sephira*, 190, 194, 196, 197, 198.

## כ

**כורסיא** *the throne*, an appellation of the *Briatic World*, the abode of the pure spirits, 203, 204; see also **עולם** *world*.

**כתר** *crown*. I. One of the names of the first *Sephira*, 187, 193, 195, 197, 198. II. Synecdochically, the intellectual world, 199.

## מ

**מדרש** (from **דרש** to search into, to examine, to investigate, to explain), which properly denotes the exposition of Scripture, is the name of the most ancient Jewish exposition of the Hebrew Bible. In its restricted sense it is used to denote the collection of expositions on the Pentateuch and the Five Migelloth, (viz., the Song of Songs, Ruth, Lamentations, Ecclesiastes and Esther) called *Midrash Rabboth* (**מדרש רבא**), 224 note; or simply *Midrash*, 186 note, 201. Each of the books composing this collection is also quoted by its separate name; *ex. gr.*, the commentary on Genesis is called *Beresith Rabba* (**בראשית רבא**) 186 note, 201; the commentary on Exodus is cited by the name of *Shemoth Rabba*, that on the Leviticus by the name of *Va-Ikra Rabba*, that on Numbers by the name of *Bamidbar Rabba*, that on Deuteronomy by the name of *Debarim Rabba*, and so on. For an account of the different *Midrashim*, their import, design, &c., &c., we must refer to Alexander's edition of Kitto's *Cyclopædia of Biblical Literature*, article *MIDRASH*.

**מטטורין** (= Latin *Metator*, with the termination **ין**), captain of the myriads of the angelic hosts, 207, 208.

**מטרונא** *the matron*, name of the tenth *Sephira* as representing the Material World, 200.

**מלכא** *King*, or **קדשא** *Sacred King*, name of the sixth *Sephira* as representing the Sensuous World, 199.

**מלכות** *Kingdom*. I. One of the names of the tenth *Sephira*, 190, 194, 196, 197, 198. II. Appellation of the Material

World as represented by the triad of the *Sephiroth*, 199, 200.

**מסורה** the traditionally transmitted critical apparatus of the Old Testament, distinguished from **קבלה** the traditionally received esoteric doctrine, 184.

**מקום** *place*, like the Greek *τόπος* in the Septuagint, by Philo, the Fathers, &c., denotes *God* who comprehends everything, and who, as it were, is the place in which all things exist *αὐτὸς ὁ θεὸς κατεῖραι τόπος*, Philo, *de Somn.* i, 575. The Jewish view on this subject is given 186.

**מרכבה** *Chariot*, name of Ezek. i and x, which treat on the Divine Throne, resting on wheels, and carried by sacred animals. Great mysteries are attached by the ancient Jews to the whole of this description of the Deity and his surroundings, which in imitation of **מעשה בראשית** *the work of the hexahemeron, cosmogony*, is also called **מעשה מרכבה** *the Work of the Chariot*, 192, 282.

**מחלף** *balance*, the symbolical name for the two opposite sexes in each triad of the *Sephiroth*, which are regarded as the two scales of a balance united by the beam, which is the third *Sephira*, 190.

## נ

**נוטריון** (= *notaricon* from *notarius*, a shorthand writer) an exegetical rule, according to which every letter of a word is taken as the initial of the word, 229, 230.

**נצח** *firmness*, name of the seventh *Sephira*, 180, 194, 196, 197, 198.

**נקודה נקודה** *smooth or indivisible point*, one of the names of the first *Sephira*, 187.

**נקודה ראשונה** *primordial point*, one of the names of the first *Sephira*, 187.

## ס

**סמא** *pillar*, the general name of each of the three perpendicular lines which are obtained in the arrangements of the ten *Sephiroth* in the Kabbalistic diagrams. When particularized, the three *Sephiroth* forming the right of the diagram are denominated **סמא ימינא** *the Right Pillar*, 197, 198; the three *Sephiroth* on the left are called **סמא שמאלא** *the Left Pillar*, 198; whilst the central four *Sephiroth* are designated **סמא דאמצעיתא** *the Middle Pillar*.

**סמאל** *Samûel, the prince of the evil spirits*, (**סמאל דהשטנים**) *Debarim Rabba*

*Parsha*, xi), the presence angel of Edom, i.e., Rome, the arch enemy of Israel. He is often identified with Satan, the angel of death, in ancient Jewish literature. Hence the so-called Chaldee paraphrase of Jonathan b. Uzziel renders Gen. iii, 6, by "And the woman saw Samüel the angel of death," and the Chaldee paraphrase on Job xxviii, 7, translates it "the path to the tree of life, which Samüel, who flies like a bird, did not know, and which the eye of Eve did not perceive" (שביל אילן דדי רמא) חכמיה כמאל דמרו דין עמא ולא סקרוה עינא (דדוה). Hence the Kabbalistic notions, 209; 224.

**ספירות** (plural **ספירות**) *emanations*. Its etymology and meaning are discussed, 187, 194, 195.

## ע

**עולם** *world*. According to the Kabbalah there are four worlds which emanated from each other in succession. 1. **עולם** *the World of Emanations*, consisting of the ten *Sephiroth* which proceeded direct from the *En Soph*, and hence the appellation of the *Sephiric* decade, 195, 196, 203, 204. 2. **עולם הבריאה** *the World of Creation or the Briatic World*, also called **עולם הכבוד** *the Throne*, which proceeded from the World of Emanations and is the abode of pure spirits, 203, 204. 3. **עולם היצירה** *the World of Formation, or the Jetziratic World* which proceeded from the World of Creation, and is the habitation of angels, 204. And 4. **עולם העשיה** *the World of Action or the Asiatic World*, which proceeded from the World of Formations, and contains the spheres, as well as matter, and is the residence of the Prince of Darkness and his angels, 204, 205.

**עולם המוטב** *the World of Matter*, the third triad of the ten *Sephiroth*, 197, 198, 286. **עולם הספירות** *the World of Sephiroth*, one of the appellations of the first World on the *Sephiric* decade, 195.

**עולם מורגש** *the Sensuous or Moral World*, appellation of the second triad in the ten *Sephiroth*, 196, 286.

**עולם מושכל** *the Intellectual World*, name of the first triad of the ten *Sephiroth*, 196, 286.

**עולם הקליפות** *the World of Shells*, one of the appellations of the fourth world, so called because it is the abode of the dregs of the other worlds as well as of the evil spirits, 204, 205.

**עמוד המלכות** *the middle pillar*, name of the four central *Sephiroth* representing mildness in the Kabbalistic diagram, 196, 199.

**עמוד הדין** *the pillar of judgment*, name of the three *Sephiroth* forming the left in the Kabbalistic diagram, and representing rigour, 197, 198.

**עמוד הרחמים** *the pillar of love*, name of the three *Sephiroth* forming the right in the diagram, and representing mercy, 197, 198.

**עץ הדיוק** *the tree of life*, name of the form in which the Kabbalah depicts the ten *Sephiroth*, 197, 198.

**עיקר** *the Aged*, one of the names of the first *Sephira*, so called because it was the first which emanated from the *En Soph*, 187.

**עיקר דעיקר** *the Aged of the Aged*, an appellation of the Deity, so called because he is the first of all existences, 187.

**עיקר קדוש** *Holy Aged*, another appellation of the Deity, 187.

## פ

**פד** *justice*, one of the names of the fifth *Sephira*, 189, 194, 196, 197, 198.

**פנים** (= *πρόσωπον*) *the faces*, or the three aspects in which the *En Soph* manifested himself, 197. This is simply a Greek expression denoting exactly the same as the Aramaic **פנימ** *faces*.

## צ

**צירוף** *combination* an exegetical rule, 293, 217; 322; explained under the article **חבורה**

## ק

**קבלה** *reception*, the esoteric doctrine received by oral tradition and through enigmatic signs in the Pentateuch, known only to the initiated, 184.

## ר

**רם מעלה** *inscrutable height*, one of the names of the first *Sephira*, 188.

**רשם הוה** *white head*, one of the names of the first *Sephira*, 188.

## ש

**שכינה** *Shechinah*, one of the names of the tenth *Sephira*, 190.

שמיניס Ps. lxxviii, 16, the name of the angels answering to the sixth *g*, 189.

*Seraphim*, Isaiah vi, 6, the name of the angels answering to the fifth *ira*, 189.

### ת

*permutation*, an exegetical rule, according to which the Hebrew alphabet is bent actly in the middle; one half is then placed over the other, and the first letter of the first two letters at the beginning of the second line are alternately changed, as exhibited in the table, 234, 235, 236. The

anagrammatic alphabets thus obtained are called by the names which the first two specimen pairs of letters yield, e.g., אל"בם *Albam*, אב"ש *Athbash*, &c. The rule is also called דילוק ודחיה *interchange of letters*, and צירוף צירוף *combination, or more fully צירוף ודחיה combination of letters*.

תפארת *beauty, mildness*. I. The name of the sixth *Sephira*, 189, 194, 196, 198. II. Appellation of the Sensuous World, as represented by the second triad of the *Sephiroth*, 199.

תרשיש *Tarshishim*, Dan. x, 6, the name among the angelic hosts answering to the seventh *Sephira*, 189.

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